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MIGRATION DIFFERENTIALS,
CANADA, 1966-1971

by

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A THESIS
SUBMITTED TO THE FACULTY OF GRADUATE STUDIES
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ABSTRACT

Migration an indicator of social change, has been studied by individuals in a number of disciplines. The widely held belief is that, in order to better understand the changes that have occured, systematic study of the characteristics which differentiate the mobile from non-mobile population is necessary. This question is addressed through the analysis of individual level sample data from the 1971 Census. It was noted that movers are different from stayers and that differences(in characteristics) among the mobile population increase by type of movement being studied. As well, it was noted that short-distance moves are made in response to life cycle demands; whereas, long-distance moves are made in response to career and employment considerations.

With the availability of individual level data, it was also possible to demonstrate that almost thirty percent of the inter-provincial moves resulted in a return move. This was, for the most part, attributed to the constraints posed by region; primarily the language barrier and opportunity structure which region represents.

Generally speaking, it appeared that one could successfully predict mobility behaviour using individual demographic characteristics, socio-economic characteristics and structural characteristics of both the origin and destination environments.

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TABLE OF CONTENTS

		Page
CHAPTER ONE	INTRODUCTION	1
1.1	Objectives of This Study	4
1.2	Organization	5
	Footnotes	8
CHAPTER TWO	MIGRATION THEORY AND TRADITIONAL "LINES OF INQUIRY"	9
2.1	Migration Theory	9
2.2	Lines of Inquiry	18
2.2.1	Motivational or Behavioural Approaches	18
2.2.2	Economic Approaches	23
2.2.3	Spatial Approaches	33
	Footnotes	40
CHAPTER THREE	MIGRATION DIFFERENTIALS: A REVIEW OF THE MAJOR DETERMINANTS	44
3.1	Migration Differentials	44
3.1.1	Demographic Differentials	46
3.1.2	Socio-Economic Differentials	62
3.2	Canadian Migration Studies	82
3.3	Hypotheses and Models to be Tested	88
	Footnotes	94
CHAPTER FOUR	METHODOLOGY	99
4.1	The Sample	100
4.2	Data Limitations	102

Page

4.3 Methods of Data Analysis 104

Footnotes 112

CHAPTER FIVE MULTIVARIATE MODELS OF MIGRATORY BEHAVIOUR ..115

5.1 Multivariate Analysis of Models A and B 117

5.1.1 Model A - Movers Versus Stayers 118

5.1.2 Model B - Intra-Municipal Movers Versus Stayers 125

5.1.3 Model B - Other Movers Versus Stayers 132

5.1.4 Model B - Other Movers Versus Intra-Municipal Movers 139

5.1.5 Model B - Intra-Municipal Movers Versus Other Movers 148

5.1.6 Model B - Intra-Provincial Movers Versus Other Movers 156

5.1.7 Model B - Inter-Provincial Versus Inter-Municipal Movers 165

Footnotes 173

CHAPTER SIX INTER-PROVINCIAL RETURN MIGRATION, CANADA 1966-1971 177

6.1 Literature Review and Hypotheses to be Tested 177

6.2 Testing the Hypotheses 184

6.2.1 Opportunity Structure Differentials 187

6.2.2 Demographic Differentials 191

6.2.3 Socio-Economic Differentials 202

6.3 Model B - Return Versus Nonreturn Inter-Provincial Movers 209

Footnotes 218

Page

CHAPTER SEVEN SUMMARY AND CONCLUSIONS 222
7.1 Methodological Problems 222
7.1.1 Dataset Limitations 222
7.1.2 Data Analysis Limitations 226
7.2 Summary and Conclusions 228
Footnotes 242

BIBLIOGRAPHY 243

APPENDIX A 257

LIST OF TABLES

Table	Description	Page
1	Five Year Internal Mobility Rates Persons Age Five Years and Over in 1971, by Age and Sex. For Urban, Rural Non-Farm and Rural Farm, Canada 1966-1971.	48
2	Males per 100 Females by Type of Migration, 1956-1961.	49
3	Rates of Gross Migration by Type of Movement by Age and Sex, 1956-1961.	50
4	Marital Status Distribution (%) of Non-Migrants and Migrants Aged 15 and Over, by Sex and Type of Migration, 1956-1961.	57
5	Married Men with Wife Present - Percent Geographically Mobile During Preceding Twelve Months, According to Age and Number of Ages of Own Children under 18, for 1968, 1969 and 1970.	60
6	Relationship Between Level of Schooling and Mobility Behaviour.	63
7	Percentage Distribution Among Movement - Status Groups for Selected Occupation Groups, Males in the Experienced Labour Force by Age Group, Canada 1956-1961.	69
8	Mobility Rates for Employed and Unemployed, 1966-67.	67
9	Migration Status and Income Patterns by Age Group.	80
10	Percentage Distribution of Mobility Status, Canada 1966-1971.	116
11	Total and Partial R^2s of Opportunity Structure, Demographic and Socio-Economic Variables on Differentiating Movers from Stayers.	119
12	Regression of Opportunity Structure, Demographic and Socio-Economic Variables on Differentiating Movers from Stayers.	120

Table	Description	Page
13	Total and Partial R^2's of Opportunity Structure, Demographic and Socio-Economic Variables on Differentiating Intra-Municipal Movers from Stayers.	126
14	Regression of Opportunity Structure, Demographic and Socio-Economic Variables on Differentiating Intra-Municipal Movers from Stayers.	127
15	Total and Partial R^2's of Opportunity Structure, Demographic and Socio-Economic Variables on Differentiating Other Movers from Stayers.	133
16	Regression of Opportunity Structure, Demographic and Socio-Economic Variables on Differentiating Other Movers from Stayers.	134
17	Total and Partial R^2's of Opportunity Structure, Demographic and Socio-Economic Variables on Differentiating Other Movers from Intra-Municipal Movers.	140
18	Regression of Opportunity Structure, Demographic and Socio-Economic Variables on Differentiating Other Movers from Intra-Municipal Movers.	141
19	Total and Partial R^2's of Opportunity Structure, Demographic and Socio-Economic Variables on Differentiating Inter-Municipal Movers from Other Movers	149
20	Regression of Opportunity Structure, Demographic and Socio-Economic Variables on Differentiating Inter-Municipal Movers from Other Movers.	150
21	Total and Partial R^2's of Opportunity Structure, Demographic and Socio-Economic Variables on Differentiating Inter-Provincial Movers from Other Movers.	157
22	Regression of Opportunity Structure, Demographic and Socio-Economic Variables on Differentiating Inter-Provincial Movers from Other Movers.	158
23	Total and Partial R^2's of Opportunity Structure, Demographic and Socio-Economic Variables on Differentiating Inter-Provincial Movers from Inter-Municipal Movers.	166
24	Regression of Opportunity Structure, Demographic and Socio-Economic Variables on Differentiating Inter-Provincial Movers from Inter-Municipal Movers.	168

Table	Description	Page
25	Percentage Distribution of Inter-Provincial Movers by Type of Move, Canada 1966.1971	185
26	Percentage Distributon of Type of Move by Region (1971), Canada 1966-1971.	188
27	Percentage Distribution of Type of Move by Community Size(1966), Canada 1966-1971.	190
28	Percentage Distribution of Type of Move by Sex, Canada 1966-1971.	192
29	Percentage Distribution of Type of Move by Age, Canada 1966-1971.	195
30	Percentage Distribution of Type of Move by Marital Status Canada 1966-1971.	197
31	Percentage Distribution of Type of Move by Marital Status (Duration), Canada 1966-1971.	198
32	Percentage Distribution of Type of Move by Family Size (Number of Children), Canada 1966-1971.	200
33	Percentage Distribution of Type of Move by Mother Tongue, Canada 1966-1971.	201
34	Percentage Distribution of Type of Move by Education, Canada 1966-1971.	204
35	Percentage Distribution of Type of Move by Occupation and Employment Status, Canada 1966-1971.	206
36	Percentage Distribution of Type of Move by Income, Canada 1966-1971.	208
37	Total and Partial R^2's of Opportunity Structure, Demographic and Socio-Economic Variables on Differentiating Inter-Provincial Movers by Type of Move.	211
38	Regression of Opportunity Structure, Demographic and Socio-Economic Variables on Differentiating Return from Primary Inter-Provincial Movers.	212

LIST OF FIGURES

Figure		Page
1	Model A: Effects of Opportunity Structure, Demographic and Socio-Economic Characteristics on Differentiating Movers from Stayers.	91
2	Model B: Effects of Opportunity Structure, Demographic and Socio-Economic Characteristics on Probability of Making a Given Type of Move.	92

CHAPTER ONE

INTRODUCTION

> It is only by studying selective migration that one can comprehend how particular changes in population composition have occurred. By studying the characteristics of migrants, one can gain deeper insights into the nature of changes that are occuring in the places of origin and destination(Bogue,1959:505).

The interest in this area of demography and in particular this study, stems from the author's belief that there is a need for further study of the determinants traditionally used to describe migration behaviour; particularly using micro-data, which until just recently has not been available to those interested in studying Canadian migration. In essence, our focus is not upon the "consequences" of migration, that is, "the adjustment and societal responses to migration"; but rather upon the "initiators of the action"(DeJong and Gardner,1981:2).

The first studies done in this area, which clearly had a large impact on the direction taken in migration research, appear to have been done by Ravenstein(1885;1889). On the basis of the observed population transfers(descriptive patterns) in the British Isles, Ravenstein formulated a series of general laws which were an attempt to explain the population transfer that had taken place[1].

With the work of Ravenstein serving as a framework, a great many empirical works followed: most notable were the work of Thomas(1938), who looked at migratory patterns in the U.S. and Bogue *et al*.,(1953;

1957) whose two volumes dealt with migration streams and migration selectivity in the U.S.(1935-1940). For the most part, these studies were descriptive in nature, and in a sense have further contributed to the lack of progress made towards formulating a theory of migration, in that it has simply generated a large body of factual knowledge.

Porter(1956:317) points out that "the first step in any scientific inquiry is to reduce a mass of observational material to a level which the mind can comprehend." With this in mind, migration research during the early to mid-20th century concerned itself with creating typologies, "classifying migration.....because they outline the concepts that may form the bases of a general theory of migration"(DeJong and Fawcett, 1981:15).

Two classic works in this area, namely the work's of Fairchild (1925) and Petersen(1958) are foremost:

1. Fairchild made the first attempt at organizing this large body of material by classifying migratory movements on the bases of two criteria; the level of culture and the type of movement. Using these criteria Fairchild was able to identify four types of movements.
2. Petersen, on the other hand, using the criteria of class of migration and level of aspiration was able to identify ten conceptual types of migration.

The next major breakthrough in migration research appeared to occur as a result of the work done by Lee(1966) who attempted to clarify the work of both Ravenstein and Petersen, by proposing a framework (push-pull), that appears to conceptually clarify the mechanisms of migration. Examining the research that has been done to date, especially since Lee's work, it is quite apparent that "explicitly or implicitly the 'push-pull' hypothesis dominates the mode of thinking about migration"(Mangalam and Schwarzweller,1968:8).

Traditionally, those adopting such a framework have studied the migration process from one of two points of view that are by no means mutually exclusive. That is, it is just a matter of emphasis which differentiates the two approaches from one another. In the first case the emphasis is placed upon the identification of migration streams; in the second, the emphasis is placed upon migration differentials, that which differentiates migrants from non-migrants(Mangalam and Scwarzweller,1968; Bogue et al.,1953; Rogers,1969).

In the research that follows, the emphasis is on the determination of migration differentials and not migration streams. The framework to be adopted is basically the push-pull framework of Lee although it does not explicitly fall within the bounds of the push-pull framework due to the data limitations[2].

There are two major assumptions which serve to justify the adoption of such a framework. Given that "migration takes place when an "individual' decides that it is preferable to move rather than stay, and where the difficulties of moving seem to be more than offset by the expected rewards"(Kosinski and Prothero,1975:4)[3]; we are assuming: one, that most moves are rational in the sense that they are made in order to maintain one's present position(conservative) or to enhance one's present position(innovative)[4]; and two, that the pull factors associated with a given destination are somewhat similar for all migrants(with the same background) at that particular destination.

1.1 Objectives of This Study

The purpose of this study of Canadian internal migration differentials(1966-1971) is twofold:

1. to determine what demographic and socio-economic characteristics are related, not only to mobility status, but also various types of movement. That is, to explore the relationship between each of these traditionally used characteristics(independent) and the two dependent variables(mobility status and type of move)[5].
2. to analyze the relationship between each of the dependent variables and these independent variables in order to determine how much of the variation in the dependent variable can be accounted for by the simultaneous action of all the independent variables. In effect, we will be assessing the predictive ability of the push-pull framework in terms of differentiating not only movers from non-movers; but also movers by type of move.

In order to achieve the stated purposes, research will be carried out using data from the individual file of the Public Use Sample Tape provided by Statistics Canada from information gathered during the 1971 Census.

"The Public Use Sample Tape is a representative sample of individual records from the 1971 Census Master File. The primary sample size is one-in-one hundred. Data from the long-form census questionnaire, or one-third sample, were used to create the Public Use Sample Tapes"(Statistics Canada,1975).

The variables to be considered are those variables that have traditionally been used; the basic limitation being that only those variables that are available in the individual file will be considered.

Generally speaking, the dependent variable will be the same in all steps of the analysis, the exception being the way in which it is operationalized[6]. The method of operationalization will be wholly dependent upon the hypothesis to be tested.

The independent variables to be examined can be classified under the following general headings:

- Opportunity Structure-variables such as region and origin community size
- Demographic-variables such as age, sex, family size, marital status, mother tongue and native-born status
- Socio-Economic-variables such as education, occupation, employment status and income.

The techniques to be used in analyzing the relationships between these variables(independent variables) and types of move or mobility status(dependent variables), will include basic cross-tabulation procedures and dummy dependent-variable regression analysis, as provided by the Statistical Package for the Social Sciences(S.P.S.S.).

1.2 Organization

In terms of organization, this study will be divided into seven chapters which will cover the following areas:

Chapter Two

This chapter will deal specifically with outlining the present state of migration theory and how the process of migration has been dealt with by those concerned with explaining this complex demographic process.

Chapter Three

In this chapter we will review the existing literature in terms of differentials or determinants traditionally used to explain migration; as well as reviewing specifically the Canadian migration literature.

Having examined this literature, the rationale for selecting the chosen theoretical framework will be presented. Hypotheses and two models(Models A and B) will then be formulated, which will be the basis for the analysis to be carried out in subsequent chapters.

Chapter Four

The major focus of this chapter will be on the methods used to analyze the data. Included in this chapter will be a short discussion of the statistical procedures to be utilized, in order to accomplish the purposes as already stated.

This chapter will also deal with some of the methodological shortcomings of this study, in order that the reader will be better able to understand both the limitations and significance of the results presented in the following chapters.

Chapter Five

The results of the data analysis will be presented in this chapter. The discussion of the findings will be carried out within the context of reporting the findings observed as a result of testing the models developed in Chapter Three.

Chapter Six

This chapter will be divided into three parts: the first, will review the return migration literature; the second, will be a presentation of the results of the bivariate analysis; and the third, will report the results found when testing a model which attempts to differentiate return from nonreturn inter-provincial movers.

Chapter Seven

The final chapter will summarize the major findings and conclusions. Limitations and suggestions for improving the present study, as well as, recommendations for future research, will be discussed in this chapter.

FOOTNOTES

1 A more detailed and elaborate discussion of Ravenstein's, as well as other classic works, will be carried out in the following chapter.

2 Methodological limitations and shortcomings, as well as justifications for this study will be discussed in greater detail in Chapter Four.

3 This is not meant to imply that migration is always rational in the first case or will always occur in the second case.

4 Petersen(1958:257).

5 Migration and mobility are used interchangeably throughout this study.

6 The dependent variable will be either a mover/non-mover dichotomy; or will refer to a specific type of move. That is, there are five states of mobility, namely:

A. Stayers - living in the same dwelling
B. Movers - different dwelling in Canada
    Intra-Municipal - movement within the same city, town, village or municipality
    Inter-Municipal - movement between cities, towns, villages or municipalities within the same county
    Intra-Provincial- movement between counties in the same province
    Inter-Provincial- movement between provinces.

CHAPTER TWO

MIGRATION THEORY AND TRADITIONAL "LINES OF INQUIRY"[1]

The major focus of this chapter will be on the state of migration research. Research in migration has been quite extensive in the last hundred years. In order to better appreciate the present state and direction taken in migration research to date, it is necessary to briefly review the literature in the area.

As well as reviewing the classic works which attempted to conceptualize this phenomenon, we will also examine the various lines of inquiry or approaches[2] that have been utilized to study this very complex process.

2.1 Migration Theory

It appears that the development of migration theory began with the presentation by Ravenstein(1885), of a paper entitled,"The Laws of Migration". In addressing the Royal Statistical Society, Ravenstein set forth several general laws. It is quite evident in reviewing the literature in this area that the ideas put forth by Ravenstein, in this and his subsequent work in 1889, have had a profound influence on the direction taken in migration research. Very briefly, Ravenstein's ideas (1885;1889) were:

1. that migration takes place in stages
2. that most migrations are of a short distance
3. that the process of "dispersion" is the inverse of "absorption and exhibits similar features"
4. that migration usually takes place in the form of a stream or main

current which produces a compensating counter-current or counterstream

5. that in those cases where migration is at a longer distance, the migrants generally go by preference to one of the great centers of commerce and industry
6. that the inhabitants of rural areas are more migratory than are the inhabitants of urban areas
7. that there exists a sex differential with respect to migratory behaviour, that is, females are more migratory than males[3]
8. that migration varies directly with the increase in the "means of locomotion and the development of manufacture and commerce"
9. that migration, though dependent upon negative conditions at the origin, is even more dependent upon positive conditions at the destination, which provide the migrant with the opportunity to satisfy "the desire inherent in most men to better themselves in material respects".

Ravenstein's works, although important as a starting point, are inadequate in terms of dealing with the mechanisms of migration. Perhaps the reason for Ravenstein's failure to deal with the mechanisms, results from the nature of his work. That is, description of the population transfer that occurred in the British Isles just prior to his presentation.

It is quite apparent that the paper entitled, "A Theory of Migration"(Lee,1966) is an attempt to expand upon the general laws proposed by Ravenstein. In addition, Lee proposed a framework that appears to conceptually clarify the mechanisms of migration. Defining migration "as a permanent or semi-permanent change of residence", Lee was able to identify four factors "which enter into the decision to migrate and the process of migration." These include:(Lee,1966:50-51)

1. factors associated with the area of origin
2. factors associated with the area of destination
3. intervening obstacles, perceived or real, that are found between the origin and destination
4. personal factors which affect individual thresholds and facilitate or retard migration.

Lee(1966:60) points out that it is these personal factors rather than the actual factors associated with the origin or destination that are most important in the migration process. This is clearly illustrated by the following examples(Lee,1966:50-51)

1. the potential migrant is able to evaluate the advantages and disadvantages associated with the origin due to his familiarity with the area. The evaluation of the destination, on the other hand, will be based on incomplete information, thereby making difficult the identification of "advantages and disadvantages that can only be perceived by living there"
2. the potential migrant "may over-evaluate the positive aspects of the origin, while at the same time he may under-evaluate the negative aspects of the destination, as a result of some sort of personal attachment to the origin."

Very simply, the model proposed would explain a move in the following way. A potential migrant would evaluate both the origin and the destination (personal factors being most important), with respect to their positive, negative, and neutral aspects. Depending then upon this evaluation, the potential migrant who decided to move, assuming that the intervening obstacles were not insurmountable, would move in response to one of two forces. Specifically, a push or pull: where, the former refers to a move made in response to negative factors at the origin; and the latter refers to a move made in response to positive factors at the destination.

Lee having identified the mechanism of migration goes on to propose a number of hypotheses that deal specifically with the volume, direction, and characteristics of the migrants. The first set of hypotheses dealt with the volume of migration. Lee(1966:52-54) proposes that the magnitude of migration is related to:

1. the degree of diversity in an area where the more diverse the area, the greater the volume due to increased opportunities; whereas, rate decreases when there is a great deal of homogeneity
2. surmounting the intervening obstacles, where the rate of migration is inversely related to the difficulty in surmounting the intervening obstacles
3. economic considerations, where migration is directed toward prosperous areas with a rate of migration that is directly related to the degree of economic prosperity.

The second set of hypotheses appear to be a refinement of Ravenstein's fourth law, that is, a discussion of the concepts, stream and counterstream. According to Lee(1966:54-55) streams develop as a result of:

1. opportunities being highly localized
2. migrants having to follow established routes of transportation
3. knowledge about destinations filtering back to the origin enabling potential migrants to evaluate their present position in relation to their potential position at the destination
4. the original migrant's ability to overcome the set of intervening obstacles between the origin and the destination; thereby, facilitating the passage of future migrants by lessening the effect of these intervening obstacles.

The efficiency of the streams of migrants[4] is determined by the motivation behind the decision to migrate. That is, using the push-pull framework, efficiency would be high when:(Lee,1966:55-56)

1. migrants are responding primarily to push factors at the origin
2. migrants are responding to pull factors at the destination (economic prosperity)
3. intervening obstacles are great, thereby deterring migrants from crossing the same obstacles twice.

On the other hand, efficiency would be low if: one, migration took place between an origin and destination that were similar; and two, if migration took place during a depression(Lee,1966:56).

Lee(1966:55-56) further proposes that counterstreams develop as a result of:

1. the disappearance of positive factors at the origin which was originally the destination
2. the return of migrants to their origin, now the destination
3. the lack of of congruence between perceived and actual experience in the original destination which is now the origin.

The last set of hypotheses put forth, dealt with identifying the characteristics of migrants. Lee(1966:56-57) argued that migration is selective in that, "persons respond differently to the set of plus and minus factors at both the origin and the destination, have different abilities to overcome the intervening obstacles, and differ from each other in terms of personal factors."

As a result of individuals responding differently to these factors, selection is:(Lee, 1966:56-57)

1. "bimodal", that is, some of the migrants are responding to negative factors at the origin(push) while others are responding primarily to positive factors at the destination(pull)

2. positive if the move is made in response to a pull
3. positive if there is a great deal of difficulty in surmounting the intervening obstacles
4. negative if a move is made in repsonse to a push

It seems that the model proposed by Lee is one that may well explain the migration process, but only in the sense that the individual has already made the decision to migrate. One of the problems with the model is it's inability to identify the factors which lead one to consider making a move, that is, the negative factors or pushes.

It also appears that the intervening obstacles are concrete things or obstacles between the origin and destination, such as distance. Kunz (1973:126) argues that just as the factors associated with the origin and destination are coloured by the personal factors(perceptions) of the migrants, so are the intervening obstacles. That is, the intervening obstacles are merely things perceived by the migrant as standing between the origin and destination. Consequently, it is these perceptions about the intervening obstacles that effect "individual thresholds and facilitate or retard migration."

The Lee model is also deficient in that it fails to explain why movements occur between environments that are similar. According to this model, efficiency of the stream would be low, but according to the model there appears to be no reason for the migration in the first place, that is, no push or pull.

Finally, one can criticize the model for its failure to deal adequately with other problems that occur: first, when the individual having made the decision to migrate, remains in his present environment due to a balance sheet that does not favour a move; and second, when the actual experience in the destination does not coincide with the perceived experience in the destination.

It should be pointed out that even with these criticisms, the model and hypotheses proposed introduced a number of ideas that provided future scholars with a starting point. As a result of the work done by both Lee and Ravenstein, it can be seen in reviewing the literature, "that most migration research has generally focused on the descriptions of streams of population re-distribution, isolation of variables which differentiate migrants from non-migrants and the social and psychological adjustment of migrants in their areas of destination" (Rogers,1969:13).

Porter(1956:317) points out that "the first step in any scientific inquiry is to reduce a mass of observational material to a level which the mind can comprehend." Fairchild made the first attempt at organizing this large body of material. This very simplistic typology classified migratory movements on the basis of two criteria: the level of culture and the type of movement. Employing these two criteria, Fairchild(1925:13) was able to identify four types of movements, namely:

1. Invasion-involved a war-like movement from a low culture to a high culture
2. Conquest-involved a war-like movement from a high culture to a low culture
3. Colonization-involved a peaceful movement from a high culture to a low culture
4. Immigration-involved a peaceful movement between cultures on an equal level.

Petersen(1958:257-258) made two criticisms of the Fairchild typology: the first, was that an attempt to distinguish between high and low cultures is an invitation to ethnocentrism; and the second, is that "the distinction between peaceful and war-like is not always an unambiguous one."

In developing his own more comprehensive typology, Petersen was able to identify ten conceptual types of migration. This identification was done using two criteria, namely: class of migration and level of aspiration.

The criterion, level of aspiration employed by Petersen appears to point out a weakness in Ravenstein's ninth law. That is, not all individuals move to better themselves, some move to maintain their present level. Petersen(1958:258) in differentiating between conservative and innovative moves, appears to have corrected this deficiency. Accordingly:

1. a conservative move would be a move where the individual "migrates in response to a change in conditions, in order to retain what they have had; they move geographically in order to retain where they are in other respects"
2. an innovative move would be a move where an "individual migrates as a means of achieving the new."

It is also quite clear that had Lee incorporated the concept level of aspiration, he could have explained movements between similar environments as being conservative in nature.

The second criterion, class of migration, demonstrates Petersen's general understanding of the importance of looking at the interactions between various factors, when attempting to study migration. Petersen (1958:266) in conjunction with this second criterion has employed five categories, namely:

1. Primitive-the migratory force being an ecological push resulting from the interaction of man and environment
2. Forced-the migratory force being migration policy resulting from the interaction of the state and man

3. Impelled-the migratory force and interaction are identical to those of the preceding category. The difference being that in the case of impelled migration, the migrant retains some power to decide whether or not to leave; whereas, in forced migration, the migrant does not have this power
4. Free-the migratory force being higher aspirations resulting from the interaction of man and his norms
5. Mass-the migratory force being social momentum resulting from collective behaviour.

There are two criticisms one can make of Petersen's typology. The first relates to what Stone(1971:76) believed was and still is the fundamental problem in migration theory today. That is, the failure to look at all factors interacting simultaneously. Petersen's typology, though making a step in the right direction by looking at two factors interacting, did not attempt to classify movements where all the factors are interacting.

The second criticism, relates to the first criterion employed by Petersen, namely, level of aspiration. Employing Lee's model and the push-pull framework, it appears that an innovative move would take place when a move was from an origin with a surplus of negative factors to a destination with a surplus of positive factors. A conservative move, on the other hand, would be from an origin with a surplus of positive factors to a destination with a surplus of positive factors. The question is then raised, "What type of move is from an origin with a surplus of positive factors to a destination with a surplus of negative factors?" The problem of classifying such a move appears to result from the inability of both Lee and Petersen to incorporate Ravenstein's (1885:199) first law into their respective works. It is conceivable, as

Ravenstein has suggested, that such a move, is simply an intermediate step in a migration process that may ultimately include a number of steps(Kunz,1973:126)

It is quite apparent, in reviewing the literature, that despite their limitations the previously discussed works have had a profound influence on the direction taken in migration research. Before proceeding with a review of the literature as relates to migration differentials, it would be useful to briefly look at some of the various approaches used in migration research.

2.2 Lines of Inquiry

Mangalam and Schwarzweller(1968:10) point out that "the mode of abstracting a phenomenon, affects in various ways its conceptualization and consequently the approach to inquiry." Given the way in which Lee abstracted the phenomenon, that is, migration takes place within a push-pull framework, one can clearly see that such an abstraction is easily adopted by scholars in various disciplines. The ease with which this framework can be adopted by all disciplines, has contributed to the present state of migration research, in that much of what has passed for migration research has been discipline bound[5].

It is noted, for example, that the study of this particular phenomenon is dealt with in the following ways:

2.2.1 Motivational or Behavioural Approaches

Quite clearly the motivational or behavioural approach to the study of migration has resulted from the realization that migration, though dependent upon the negative conditions at the origin, is even more dependent upon the positive conditions at the destination; which provide the migrant with the opportunity to satisfy the desire inherent in most men to better themselves in material respects(Ravenstein,1885:1889) This aspect, though mentioned by Ravenstein and expanded upon by both Petersen[6] and Lee[7] has been largely ignored in migration studies.

The study of the behavioural process has generally centered around the decision-making process[8] at the individual level. Generally speaking, it dealt simply with the motivational or behavioural aspects of the moving decision process; the basic premise being that a dissatisfied individual having surpassed a given threshold level, would move to an alternative location, if that individual perceived that location as offering a means of attaining a more satisfying or rewarding existence than the present location.

Although study of motivational process is an area that is not substantially dealt with, it is probably the most important step for it initiates the migration process. Quite clearly this was unintentional, but resulted from the limitations posed by the availability of data, which dealt specifically with this aspect of the migration phenomenon.

Traditionally, the type of analysis done has consisted of imputing motives from objective structural determinants and then imputing these motives to the individual migrant(Taylor,1969:99). The difficulty with attacking the problem in such a way is that it ignores Lee's idea of personal factors and the fact that similar environments are perceived differently by similar individuals.

In order to correct this apparent weakness, "micro-analytic approaches" which addressed the "behavioural factors that heighten or reduce susceptibility to opportunities elsewhere...were advocated" (Morrison,1973:127). The vehicle, for getting a better understanding of these behavioural aspects, appeared to be best achieved by doing a comprehensive study of one type of move; namely, residential mobility.

The first attempt at dealing with the motivational aspect of migration, on a micro level, was carried out by Rossi(1955). For the most part, Rossi saw most moves as being conservative in nature; the decision to move being based upon dissatisfaction with the present environment. The problem with Rossi's treatment of behavioural process is that he failed to: (a) conceptualize the concept of a "threshold of dissatisfaction" that must be reached, prior to making the decision to move; and (b) realize that once the decision to move has been made, that a move may not actually occur as a result of a lack of suitable alternatives.

Much of the work that followed, dealt primarily with conceptually clarifying this "threshold of dissatisfaction" concept and the mobility decision framework(Brown and Moore, 1971; Speare,1974: Bach and Smith, 1977)[9].

The first major attempt at clarification was done by Wolpert (1965;404-408) who advocated a "lifecycle approach to threshold formation." In essence, Wolpert argued that each individual has a "given aspiration threshold" or "net utility" which is continually changing as a result of the "cycle of life" or experience.

On the whole, the framework proposed by Wolpert is significant in that:

1. Wolpert(1966:67) is able to propose a plausible explanation for why individuals behave differently in similar environments. That is, "individual variation in abiltiy to control, eliminate or reduce noxious influences" is a result of not "only biological inheritance or genetic endowment" but also "early positive and stressful elements from his social or non-social environment which

shapes his personality and which helps to mold his actions and attitudes at later times"

2. Wolpert(1965) proposes that place utility or in Rossi's terms satisfaction is determined not simply by complaints etc., but rather by the individuals net utility or aspiration level and the availability of alternative environments that meet one's aspiration level; and thereby provide an alternative environment which has a significantly higher place utility
3. the notion of a "mover-stayer continuum" was introduced which helps to explain why certain individuals or groups do not make the decision to move, when the place utility of the present environment is negative. The explanation being that time is most important, in that movers are encouraged to move as a result of perceived greater place utilities at some other position in space; stayers on the other hand, simply postpone the decision to migrate for periods of time extending up to an entire lifetime.

In general, most of the motivational or behavioural research, has treated migration as being conservative in nature. That is, resulting from a push rather than a pull. Such treatments obviously make it difficult to explain the motivation behind an innovative move, where the move is made in response to future needs.

There have been numerous other attempts to deal with the motivational component. Most notable are the works of Beshers and Nishiura(1961) and their idea of an orientation to either the present or the future[10]; Lansing and Kish(1957), Leslie and Richardson(1961), Long (1972), Miller(1970) and Speare(1970) to name a few who proposed that mobility took place within the context of a progression through a number of life cycle stages; Butler et al.(1964), Kennedy(1975), Michelson

(1971:1977) and Sabagh et al.(1969) who proposed that mobility occurred in response to lifestyle considerations; and Bell(1958), DeJong and Fawcett(1981) and Sabagh et al.(1969) who looked at social mobility and social status as being a product of geographic mobility[11].

The kinds of issues raised, with respect to these structural variables or attributes are that, these "structural attributes .... indicate differential constraints on behaviour" and when applied in relationship to the kinds of social-psychological attributes (motives etc.) previously discussed, "it is implicitly assumed that these social-psychological attributes are viewed as operating in conjunction with structural attributes"(Ritchey,1976:378).

One last contribution made by those concerned with the behavioural process and migration has to do with the work of Kennedy(1975), Lingren (1969), Michelson(1971;1977) and Taylor(1969) who dealt with the adaptive process that takes place after the move has been made. These researchers introduced the notion of "congruence" and it's effect as a motivation for either a second move; or a second move in the form of a return migration when the actual experience in the destination does not correspond to the perceived experience in the destination. That is, a lack of convergence between perceived experience and actual experience.

For the most part, the motivational aspects of the migration process have been dealt with primarily on the conceptual level. As is clearly evident from the preceding discussion, the main reason for this lies with: (a) the complex nature of the process and the difficulties created by attempting to operationalize these abstract concepts; and (b) the cost and problems created by attempting a longitudinal type of analysis which would be the only way of adequately gathering information on migration.

In conclusion, the behavioural aspects of migration as briefly discussed, raise serious doubts as to the legitimacy of much of what has been done in the past. Perhaps, the major contribution of those involved in studying this aspect of migration, has been to point out the complex nature of the process, thereby providing a possible explanation for the lack of consistent findings found in the literature.

2.2.2 Economic Approaches

While those concerned with studying the behavioural process have not actually dealt with the motivation or factors which induce/impede migration[12]; the discovery of these motivating factors, that is, the push(origin) factors and pull(destination) factors, has been one aspect of migration that has been dealt with most frequently by economists[13].

The economists interest in migration stems from the belief that population re-distribution(migration) is important in terms of economic development(Cowgill,1961; Elizaga,1970; Greenwood and Sweetland,1972; Isaac,1947; Kirshenbaum,1971; Malthus,1807; Ritchey,1976; Spengler,1970; Thomas,1954; Willis,1974). That is, not only has it been important in the past, but it will perhaps begin to be even more important, what with the trend towards zero population growth and the need for efficient utilization of the existing labour force(Grant and Vanderkamp, 1976:26)[14]. Migration is seen as a force or means of "re-distributing labour geographically, in accordance with changes in demand for specific types of skills"(Willis,1974:11). As a result of this belief, the concern of economists has centered around: (a) discovering the structural("market") conditions such as wage differentials and unemployment rates, and (b) "the role of alternatives to market conditions", such "presence of relatives and friends, amenities and services, public assistance and social inequality"[15] that tend to induce/impede migration and thereby promote/hinder economic development (Ritchey,1976:364-365).

The operation of the classifical competitive model is perhaps best summarized by the following statement.

> Migration takes place according to the ability of the market to adjust both the relative factor prices and the relative prices of labour, housing environment and so on, so as to clear markets... According to the classical competitive model, migration(of labour) from area i and j will occur as long as the average wage in j is greater than in i with the volume of migration increasing as the wage differential increases assuming that persons desire to maximize earned income, knowledge is perfect, there are many workers with homogeneous skills and tastes, and there are no barriers to mobility, social or economic(Willis,1974:11).

The importance of looking at economic considerations in migration, not only at the aggregate level but also at the individual level, is clearly demonstrated by the literature. Lansing and Mueller(1976:60) show that among those in the labour force, 71%[16] cited both economic and non-economic reasons for moving as opposed to only 18% citing non-economic reasons only.

Most often, these economic studies have relied upon secondary data sources which for the most part are aggregate in nature. The analysis has traditionally focused upon identifying "objective structural determinants" from macro-analysis and then imputing influences and motives to the individual(Shaw,1974:59).

There are a number of problems found in most economic studies, that tend to weaken, or at least confuse the issue. For the most part, the weaknesses which contribute to the breakdown of classical competitive theory, can be attributed to the type of analysis that has been employed and the level of measurement available[17].

In order to better appreciate some of the weaknesses in the various economic approaches it would be beneficial to briefly deal with some of the problems. Most economic analyses employ a dependent variable which measures migration streams, that is, net migration[18] is most often utilized to express the magnitude of the stream(Falaris,1979; Greenwood and Sweetland,1972; King,1978; Marr et al.,1977; Okun,1968). The problem with using such a dependent variable is that, "a net increase in an area due to migration can be achieved in an infinitely varied number of ways." As a result, two areas may have the same net migration rate, but this may have resulted from different forces acting; greater in-migration on the one hand and lower out-migration on the other hand, or vice versa(Galle and Williams,1972:655-657).

Very few studies have adopted a measure of "migration efficiency" as proposed by Galle and Williams[19]. It's value rests in the fact that it is a ratio of "stream to counterstream" something that cannot be measured or indicated by using net migration.

A second major problem area relates to the independent variables that are traditionally employed:

(i) the first problem relates to the lack of independence between the independent and dependent variable. For example, the wage rate or unemployment rate utilized is generally an average(for a 5 or 10 year period) for some large area(province or state). In effect, this rate at time2 is a function of migration between time1 and time2 and the structural features existing at the origin and destination at time1 or between time1 and time2(Shaw,1975:65);

(ii) the second problem relates to using an aggregate measure of unemployment or wage rate for a province or state, which cannot account for large variations in the rate within the area, for which the rate is calculated(DaVanzo,1981:99).

The third major problem area in most migration studies relates to the type of analysis that is done, and the failure to dissaggregate; a problem, which in many instances cannot be avoided due to the limitations presented by the data. Specifically:

(i) the failure to distinguish between the various types of migrants (return, primary, secondary etc.). Consequently, there is no way of determining the various motives influencing these movers. That is, a 'move' is considered to be a 'move', but the motives may be different depending upon whether the move is a primary, secondary or return move (DaVanzo,1981:98). Part of this problem can be attributed to the time span traditionally used in gathering census information(the major source of information used by economists)[20]

(ii) these aggregate data "often do not distinguish military personnel[21] ... from civilian." As well, they fail to distinguish civilian moves that are due to such things as retirement, studies and job transfers("autonomous") from other types of move where the motivation is clearly in response to economic conditions(structural conditions)(DaVanzo, 1981:99)[22]

(iii) most of these economic studies, do not stratify individuals according to socio-demographic characteristics(eg. age, education, occupation). They treat these movers as a homogeneous group, yet they are by no means homogeneous and may in fact be responding to different motivating influences. This may surely be one of the reasons for the lack of consistent findings found throughout the economic literature (DaVanzo,1981; Willis,1974).

Although plagued by these problems, these studies are in themselves quite useful for they do offer a means of explaining many of the findings in not only the present study, but also the studies that have been done to date[23].

The most often cited structural variable used by economists, in studying this phenomenon is income(Courchene,1970;1974; Grant and Vanderkamp,1976; Labor and Chase,1971; Lycan,1969; Vanderkamp,1968; 1971). For example, Lansing and Mueller(1967:67) found that 29% of those that moved for economic reasons, moved to a better job, paying higher wages

The expected association between income and migration is:(Ritchey, 1976:365)

1. that there is a negative association between out-migration and area earnings
2. that there is a positive association between in-migration and area earnings
3. "that as levels of earnings increase across areas, out-migration should decrease and in-migration should increase; therefore, net migration should be positively related to earning levels"(Willis, 1974:17).

These general realtionships between volume of migration and income (which should appear according to classical competitive theory), do not in actuality appear to be that strong. The work done by economists, which has been most informative, in terms of explaining the breakdown of classical theory, originates from those studying the Canadian setting (Courchene,1970;1974; Grant and Vanderkamp,1976; Vanderkamp,1968;1971).

The major contribution of these Canadian studies are that:

(i) migration flows are not homogeneous, that is, a large proportion of inter-provincial moves are return or "autonomous" moves[24] and income differentials, in all likelihood have little influence in these cases (Vanderkamp,1968;1971)

(ii) the affect of wages at both destination and origin have differing effects in terms of promoting or hindering movement. That is, a low wage rate in the sender region may stimulate movement on the one hand; but will also make it difficult for individuals to bear the costs of moving or relocation, on the other hand(Courchene,1970:553)

(iii) since migration is not homogeneous, with respect to "occupational or industrial attachment", income opportunities in receiving areas may not provide the kinds of incentives needed to induce migration for certain groups. That is, though migration may be stimulated towards areas with higher income levels (according to theory), the income opportunities as such, may not apply to all groups but only to a specific group(Vanderkamp,1971:1016)

(iv) those regions with high income levels are bound to have high in-migration(a more mobile population). "Thus, ceteris paribus, a high income region will have a higher rate of out-migration because it's population is more mobile than a low-income region"(Vanderkamp, 1971:1026).

On the whole, the work done using wages as a economic motive, has been found to be inconclusive. In part this is most definitely due to the complexity of the phenomenon, the various types of moves and the selective nature of migration. As well, this is due, not only to the problems outlined above, but can also be attributed to the kind of static approch that is utilized; and the inability to control for the feedback or changing equilibrium that is both cause and effect of the redistribution process(Greenwood and Gormerly,1971)[25].

Vanderkamp(1971:1016) points out that "income prospects vary with employment opportunities." This leads then to a discussion of the second most often employed structural variable used by economists, namely, employment opportunities. Traditionally, employment opportunities have been measured in terms of unemployment rates, but in some cases, as well as using the rates in both origin and destination, there is an attempt to include a variable which measures the type of economy(service, primary, etc.)(Blanco,1963; Bogue et al.,1953; Bogue and Harris,1954; Greenwood,1968; Greenwood and Sweetland,1972; Okun, 1968; Tarver,1961;1967).

The classic work relating employment opportunities to migration was carried out by Lowry(1966). It was proposed that migration or movement of labour was a function of : one, the size of the labour force at both origin (i) and destination (j); two, the percentage of the labour force unemployed at both i and j; three, the hourly wage rate at both i and j; and four, the distance between i and j [26].

In short, Lowry attempted to test the "claim that the labour market allocates workers more or less where they belong in terms of their productive ability and that comparitive economic opportunity(and economic motivation) is the driving force in inter-regional patterns of migration"(Shaw,1975:63) [27].

The inclusion of economic opportunity in most economists work is usually an attempt to focus on employment and unemployment, as being the major motive behind migration. Lansing and Mueller(1967:66) show that 15% of those that moved and gave economic reasons for moving, moved in response to unemployment. The expected relationship between migration and unemployment, according to classical theory, is that where

> the number of new industrial jobs added annually was less than the natural addition to the population of working age, unemployment rose, and outward migration increased to other areas where job opportunities matched the labour supply more closely(Blanco,1963:79).

Even though this relationship has been shown to exist(Blanco,1963; Okun,1968; Canada Manpower and Immigration,1975); Greenwood(1968:193) has demonstrated that such was not the case in the U.S. for the 1955-1960 period. It was demonstrated that migration actually went from areas of high employment to areas of high unemployment. The explanation offered was that much of this migration was of the rural-urban variety, and that much of the unemployment in the rural areas is hidden.

Simmie(1972:15) states, that for the most part, economic theories are "no more statisfactory than descriptive ones[28]. In response to this perceived failure of economic theories to deal adequately with migration, Sjaastad(1962) proposed a cost-benefit framework. This framework attempted to deal with the decision-making process, with the basic premise being that the individual is rational, and treats migration as "an investment from which one expects to receive returns sufficient to offset the cost of moving"(Speare,1971:11).

The original model as forumulated by Sjaastad identified two major interacting forces, which compete or at least serve as inputs, in the decision-making process. They are:

1. Costs(both monetary and non-monetary) - the former refers to such things as lost wages, cost of moving, and cost of living differentials between the origin and destination; the latter refers to earnings lost while travelling, searching for a job etc. As well Sjaastad has pointed out that there are "psychic costs" involved, a form of non-monetary cost that refers to the emotional costs of leaving friends, relatives and familiar surroundings.
2. Returns(both monetary and non-monetary) - basically, Sjaastad (1962:85) states that money returns consist of a "positive or negative increment to his real earnings streams...this increment arising from a change in nominal earnings, a change in costs of employment, a change in prices, or a combination of all three".

The non-monetary returns on the other hand, refer primarily to the psychic cost and amenities or "alternative conditions" offered by the destination; as well as to the "socio-economic factors that operate to condition the values taken on by the individual"(Shaw, 1975:87-88).

This cost-benefit approach though proposed by Sjaastad has been used most notably by Courchene(1970), Greenwood and Gormerly(1971), Greenwood and Sweetland(1972) and Speare(1971;1975). It has proven to be most useful, especially as it relates to the decision-making process. It is quite apparent that much of the abstract thinking introduced in the previous section(behavioural approaches), clearly makes use of this type of framework.

The work of Speare(1971) is especially important in that he was able to argue that the non-monetary factors are very important in the decision-making process; whereas the monetary factors are most important in the actual decison of where to move process.

Perhaps the most important contribution made by those using the cost-benefit framework was that they helped to focus atention on many of the issues raised in the previous section. Specifically:

1. the importance of information is clearly demonstrated in that, information on job opportunities is a component that is built into the framework as outlined by(Speare,1971); as is the probability of obtaining employment at the destination, which clearly can only be determined with information about the destination
2. this framework provides a mechanism, which acknowledges the existence of a threshold of satisfaction, which is determined by "socio-economic factors, which also operate to condition values taken on by the individual"(Shaw,1975:88)

3. the importance of social considerations, "pyschic costs" and amenities offered by the destination, have been shown to be important, in terms of the moving decision(Greenwood,1968)[29]

4. it demonstrates the need to consider the moving decision at the individual level, in the sense that values as well as thresholds, may be common for individuals of similar backgrounds. Perhaps the most important contribution has been that testing of this model[30] has shown that individual characteristics are important, in that the satisfaction with the present environmnet is a function of these individual attributes and intervenes between these individual characteristics and the actual decision to move and moving process(Ritchey,1976; Speare,1974).

Though this particular framework appears to be quite useful in terms of understanding the migration process, it does have two limitations. One, it is very difficult to operationalize, in a meaningful way many of the components(for example, the psychic costs and non-monetary costs as well as the quality of information). Two, it assumes that all moves are voluntary and that all migrants go through this cost-benefit type of accounting; which is not the case, and even if it were one would have to question how accurate the information used to evaluate the destination is; the end result being a poor decision[31].

On the whole, the economic approaches and their empirical treatments, have yielded results that are inconclusive. Returning to the earlier discussed assumptions of the "classical competitive theory", it is fairly obvious that the assumptions as stated are very rarely met, thereby accounting for the breakdown in the classical model. Even though the classical model does not seem to hold, these economic approaches are quite valuable, especially the analysis of the Canadian situation, for they do clear up, and offer plausible explanations for the types of relationships observed in studies dealing with migration differentials.

2.2.3 Spatial Approaches

Shaw(1975:41) states that

> in most cases...attempts have been made to introduce spatial aspects into descriptions and explanations of migration as functions of structural parameters, such as distance, direction of migration flow, size and interconnectiveness of places of origin and destination, and information fields and intervening opportunities between alternative destinations.

It is quite apparent then that much of that which concerns those involved in looking at the spatial aspects of migration, has resulted from/or led to much of that which has alredy been discussed.

Clearly, one of the most often cited "structural parameters" used in the study of migration is distance(Greenwood and Gormerly,1971; Lowry,1964; Sjaastad,1961; Stouffer,1940;1964; Zipf,1940)[32]. Traditionally, the relationship between volume of migration and distance, has been shown to be inverse in nature. That is, as distance increases, volume tends to decrease.

There are two classical works that have treated distance as a most important variable in the migration process. Specifically, they are the works of Zipf(1946) and Stouffer(1940;1964). Zipf argued that "movement is explained by the principle of least effort; the number of people going from one city to another should be a function of the distance separating them, since the effort required to cover greater distances would presumably increase as did the distance"(Jansen,1969:60). Basically, Zipf proposed that migration between two places is directly proportional to the "product of their sizes" and inversely related to the distance separating the places(Lowry,1966:8). It is fairly obvious that many of the economic studies, have attempted to treat the distance factor within a cost-benefit type of situation by looking at distance elasticities(Greenwood and Gormely,1971; Greenwood and Sweetland,1972; Greenwood,1968). That is, the increase in wage or income that would have to be forthcoming in order to justify a move of "X" miles.

Whereas, the model put forth by Zipf considered only total movement patterns, the second classic work considers "uni-directional flows" (Rogers,1965:4). Stouffer's(1940) model, the basis for the work done by Lowry(1964), specifies directional flows of migrants, something Zipf ignored; and introduced the concept of "intervening opportunities." Stouffer felt that distance as such was not as important a factor as the number of opportunities available and suggested that..." the number of persons going a given distance is directly proportional to the number of opportunities at that distance and inversely proportional to the number of intervening opportunities"(Jansen,1969:9).

Stouffer(1964) in reformulating his original model suggested the need to include a term representing competing migrants. That is, migration between i and j is equal to:
(i) direct function of the opportunities at place j plus an
(ii) inverse function of opportunities intervening between places i and j plus an
(iii) inverse function of other migrants competing for opportunities at place j.

On the whole, empirical tests of these two models have shown that the results of the Stouffer model are a better predictor of migration streams than the Zipf model(Galle and Taeuber,1966; Tarver and McLeod, 1973). It should be pointed out that there is one major drawback to the Stouffer model. That is, the independent variables utilized by Stouffer are components of the dependent variable which is being predicted.

As well, the Stouffer model is a better prediction model of migration streams but only after the fact; whereas, the Zipf model can be used to predict future migration streams(Tarver and McLeod,1973:259-260)[33].

Returning to the originally stated relationship between distance and migration, that is the inverse relationship between distance and volume of migration; Ter Heide(1963:59) points out that the nature of this relationship can be largely attributed to the following:

1. "the expense and difficulty of travelling over long distances"
2. "the wish to maintain contacts, either of a personal or a business nature, with the region one leaves behind"
3. "the fact that information concerning opportunities is easier to be had for regions at shorter distances."

Ter Heide(1963:59) in offering this explanation of the inverse relationship, has shifted the emphasis away from the structural parameters used by Zipf and Stouffer, towards the individual and the transmission of information about possible alternative locations. It is quite apparent that without the transfer of information, migration would not occur. In making this shift, he argues that one can look at distance in the "technical" and "social" sense.

Clearly, distance in the "technical sense" is deemed to be important in that volume of migration will be limited not only by the existing "means of locomotion", that is, the availability of cheap and efficient transportation; but also by the existence of a "communication network" which facilitates the transportation of information about possible alternative destinations.

More important that "technicial distance" is the concept of "social distance" and it's limiting effects on the volume of migration. The concept of "social distance" accounts for the fact that, generally, "the volume of internal migration greatly exceeds that of international migration, even if geographical distance is kept constant... The cultural and linguistic differences which usually exist between different countries are sufficient explanation for this phenomenon"(Ter Heide,1963:62-63)[34].

Ter Heide aptly points out that information sources play a very important part in migration, not only in terms of the distance function but also in terms of the direction of migration flow. As a result of this concern with directional flows, that is, migration between poles of repulsion(origin) and poles of attraction(destination), a line of reasoning evolved which attempted to explain a breakdown or at least variation in the inverse nature of the relationship between distance and volume of migration.

Shaw(1975:44) points out that "directional bias" in migration is important for it helps to "overcome the limiting assumption in central place theory where interaction intensity is viewed as decreasing over distance systematically in all directions." In general, the way in which directional biases have been studied, and by whom, is to a large degree determined by the type of data available and the level at which the process is discussed. In the first case, the studies dealing with aggregate level data, have simply concerned themselves with the description of population transfer; movements such as rural-urban shifts, internal and international movements. This traditionally, has been dealt with by the demographers, "who treat migration as an element in population dynamics"(Elizaga,1972:127)[35]. Classic works of this type include the work of Ravenstein(1885;1889) who described migration in the British Isles in the late nineteenth century; George(1969) and

Stone(1969) who both examined Canadian migration; Bogue et al.(1953) who examined U.S. regional migration 1935-1940; Shryock(1964) who also examined U.S. migration 1940-1950; and Roseman(1977) who examined the changing migration pattern in the U.S. from 1955 to 1970[36].

In the second instance, the emphasis has once again been shifted towards the individual and most of the discussion is at the abstract level. The emphasis here is usually placed upon determing what information sources were utilized in locating an alternative environment. Traditionally, this has focused on one specific type of movement, namely residential mobility and the determination of the sources used; the amount of time spent in searching out alternatives; and the number of alternatives examined(Lansing and Mueller,1967; Michelson,1977; Rossi,1955).

One thing that becomes quite clear in examining the literature in this area, is that just as the migration decision-making process is quite complex, the "search process", is also quite complex and has great implications, in terms of the decision-making process. Much of the work done which deals specifically with the "search process", has been done on the conceptual level(Adams,1969; Brown and Holmes,1971; Brown and Holmes,1971a; Brown et al.,1970; Gould,1972; Horton and Reynolds,1971; Mabogunje,1970; Moore and Brown,1970: Sonnefeld,1972).

The previously cited literature, culminated in the formulation of an abstract model, dealing specifically with the "search process", which is perhaps best illustrated by the work of Brown and Moore(1970) who formulated a two stage model dealing with the residential mobility process.

According to the Brown and Moore(1970:6) model, the search behaviour of an individual who has made the decision to seek an alternative location, is dependent upon the availabilty and use of that available information. As well, Brown and Moore(1970) and Brown et al. (1970) introduced the concepts of "awareness space", "activity space" and "indirect contact space" which are important in defining the boundaries of the "search space" as well as being the primary means of gathering information about various alternative locations.

Overall, the model of Brown and Moore(1970)[37] represents a model, that originally was intended to conceptualize the residential mobility process. Quite clearly, it could also be applied to the migration process at the general level for it incorporates many of the concepts and processes alluded to in the preceding sections.

The brief review presented in this chapter was meant to serve as a means of outlining not only the complex nature of the migration process, but also the directions that have been taken in migration research. The point that emerges from the preceding is that the individual is most important in the process. Even though such concepts as satisfaction (Speare,1974) or stress/strain(Wolpert,1965; Brown and Moore,1970) are seen as the cause of migration, it is the individual and his/her attributes that are most important in terms of differential reponses to the environment; resulting in stress/strain or satisfaction, which ultimately accounts for the movement.

This brief review also appeared to indicate that migration behaviour or movement, varied systematically with individual attributes. Put in another way, behaviour(type of move as well as propensity to move) was differentially constrained by structural variables or individual characteristics(Ritchey,1976:378). Whereas, economic and spatial approaches, for the most part, have dealt with the structural conditions of the environment(wage rates, employment rates, opportunities etc.), the literature to be reviewed in the next chapter approaches the problem from a different direction. That is, "given a sedentary population and inducements to leave a place of residence, typically some persons migrate to new places of residence while others remain behind. In short inducements which may be expressed as push and pull factors, do not apear to exert their force equally"(Shaw,1975:17). The emphasis, is therefore on these individual attributes or characteristics, which account for differential responses to these so-called "inducements"[38].

FOOTNOTES

1 Shaw(1975).

2 It should be noted that it is beyond the scope of this study to deal with stochastic and other mathematical approaches to the study of migration.

3 This pattern is usually found only when examining short-distance moves; whereas the reverse is true in long-distance moves.

4 Where efficiency is operationalized as "the ratio of stream to counterstream or the net re-distribution of population affected by the opposite flow"(Lee,1966:55).

5 It should be emphasized that though these approaches or lines of inquiry are discipline bound, they are by no means mutually exclusive. This lack of exclusivity does create a problem in reviewing the literature in that, it makes it difficult to deal with these various approaches without referring to one if not all of the other approaches.

6 Classifying moves as being conservative or innovative in nature.

7 Introducing the concept of selectivity, as well as, noting that selection is either positive or negative, depending upon the motivation.

8 Primarily, at the conceptual level. Perhaps the most frequent way of studying this motivational or behavioural process has been to consider it within the context of assimilation and acculturation. That is, how the mover adapts to the new environment. There have been numerous theoretical efforts at dealing with this aspect of migration, most notable are the works of Gordon(1964), Eisenstadt (1953) and Germani(1970). Although this is a very important aspect of migration, it is beyond the scope of this particular study to deal with this aspect of migration.

9 As a result of the lack of mutual exclusivity in much of these discipline bound approaches, the work of Brown and Moore will be dealt with more thoroughly in the section dealing with spatial approaches; as well, the work by Speare will be discussed in the economic section.

10 Present being "short-run hedonistic", future being "purposive-rational."

11 This last point once again alludes to the studies that have been done on acculturation and assimilation.

12 Except for those studies dealing with satisfaction and mobility such as the studies of Speare(1975), Rossi(1955) and Newman(1974).

13 Such is definitely the case in Canadian migration research, which except for the identification of streams and counterstreams. as well as differentials, has been primarily economic in nature.

14 Obviously on the one hand, migration is the cause of economic development, while on the other hand it may be the result of economic development.

15 These "alernatives to market conditions" will be discussed more thoroughly in the following section, where the emphasis is on the spatial aspects of the migration process.

16 61% cited economic reasons only and 16% cited both economic and non-economic reasons.

17 We do not mean to imply that these problems are only endemic to economic analyses, for such is not the case.

18 In some cases: gross migration(Greenwood,1968), in-migration (Nielsen,1974), and out-migration(Blanco,1963; Nielsen,1974) are also used, but most often it is the net migration rate or some facsimilie that is employed.

19 This notion of "efficiency" was first proposed by Shryock(1964) and later was incorporated into the model proposed by Lee(1966). "Efficiency ratio" was operationalized as "the net migration of an area divided by the total number of moves whose origin or destination is that area, times 100(Shryock(1964) cited in Galle and Williams,1972:656).

20 Other sources, which have been used by economist include family-allowance transfer payments(Vanderkamp,1971; Courchene,1970) and information from the Unemployment Insurance Commission (Canada) as well as tax records(Grant and Vanderkamp,1976).

21 Blanco(1963) and Stone (1976), as well as our study have taken note of the importance of distinguishing between military and civilian moves. In our study and the study by Stone, an effort has been made to exclude military personnel from the sample selected.

22 Lansing and Mueller(1967:65) found that 20% of those citing economic reasons for moving, gave job transfers as the reason for relocating. It is quite apparent that the motivation for these individuals, as well as for students and retirees will be quite different from the motivation for other movers.

23 It should be pointed out that many of the above problems in disaggregation, have been dealt with to a certain degree, quite adequately by those individuals concerned with studying the Canadian situation.

24 Autonomous moves refer to job transfers or military transfers.

25 The most classic case of this breakdown in classical theory being the ability to possibly explain the stream, but not the resulting counterstream. An attempt to deal with this problem by using a simultaneous equation approach was undertaken by Okun(1968), but this type of analysis is the exception rather than the rule.

26 The importance of distance will be dealt with more adequately in the following section on spatial approaches.

27 The Lowry model is an outgrowth of the work done by Zipf(1946) and Stouffer(1940;1964); two models which will also be discussed in the next section.

28 Descriptive theories are those that look at the magnitude and volume of migration as well as characteristics of migrants. These theories, have yet to be examined and this will be done in both the following section and next chapter.

29 Greenwood found that migrant stock, as an information source, was more important than wages or opportunities in predicting migration.

30 Speare et al.(1975)

31 This indicates the importance of the concept of congruence (before/after) between perception and experience. This particular problem was first alluded to by Lee(1966;50-51).

32 The inclusion of distance, as a factor, has not been discussed in the previous section, even though it has been considered as an important factor in those economic studies using wages, opportunities and cost-benefit analysis. We felt that this would be better dealt with in this section, as much of the work relating to distance preceded the work on the economic models.

33 One of the major criticisms of the Zipf model is that it tends to over-estimate the magnitude of short-distance migrations due to the mathematical function underlying the model(Ter Heide,1953:58).

34 Clearly, this concept of "social distance" is one factor that is operating within the concept of the Canadian setting, especially as it relates to migration into and out of Quebec; as well as movement around Quebec and movement from the far eastern regions towards the centre and western reaches of the country(Lycan,1969; Stone,1969; George,1969). For the most part, the inverse nature of this relationship is fairly well demonstrated, though we find that for certain age and occupational groups as well as others(life cycle etc.), the relationship tends to be less significant and tends to vary from that which is predicted. These variations will be more fully explored in the following chapter.

35 That is, the identification of streams and counterstreams, migration efficiency, in-migration, out-migration and so forth.

36 Roseman also looked at streams and counterstreams, as well as, career and life cycle patterns of movement within the context of the decision-making process.

37 The actual working of the two stage model has not been fully elaborated on here, for in part it has already been dealt with in the first section (behavioural approaches), with respect to the works of Wolpert(1965;1966), Speare et al.(1975) and Kennedy(1975).

38 Keeping in mind that the migration process is very complex and that any systematic differences that have been found, among groups or individuals that are making migration decisions, are taking place within the context of the previously discussed framework.

CHAPTER THREE

MIGRATION DIFFERENTIALS: A REVIEW OF THE MAJOR DETERMINANTS

In the preceding chapter the focus was on a review of classical migration theory and the major lines of inquiry traditionally used to study this very complex process. The purpose of this chapter, on the other hand, is to review the literature dealing with migration differentials(generally); as well as briefly reviewing the literature as it relates to the Canadian experience. On the bases of this review, and the types of relationships which have been shown to exist between individual attributes and migration, hypotheses and specification of the models to be tested(in subsequent chapters), will be presented.

3.1 Migration Differentials

The idea of/and importance of migration differentials (differential responses) to these inducements[1], has been an idea that was initially recognized by Ravenstein(1885), who observed that females were more migratory than males. Lee(1966) further re-affirmed this idea of differential responses when he argued that personal factors were most important in terms of evaluating and responding to these inducements or structural features. As a result of these works, the search began, and is continuing, to determine which individual characteristics could best differentiate the non-mobile from the mobile population.

Apparently, the concern with looking for migration differentials stems from the belief that migration has important consequences for both origin(sending area) and destination(receiving area)(Canada Manpower and Immigration,1975; Bogue et al.,1953:1957; Cowgill,1961; Elizaga, 1970; George,1969; Kalbach,1970; Kalbach and McVey,1979; Simmons,1968; Stone,1969)[2]. The need to study migration differentials is important, not so much as an end in itself, but rather as Bogue et al.(1953:1-2) points out:

> it will be difficult to understand or predict the effects that any migration will have upon a given community until the selective aspect of migration is better understood... This can be achieved only by discovering...the various migration differentials or the qualities that differentiate migrants from members of the communities from which they depart or from members of the communities to which they go[3]

The preceding statement by Bogue et al. about selectivity, origin differentials and destination differentials addresses two similar, yet subtly different questions. That is: one, the idea of selectivity, which at least according to Lee's(1966) interpretation, involves a motivational component, in that, selectivity is based upon whether the movement is in response to positive or negative factors associated with either/or both the origin and destination; and two, the question of whether the mobile group varies substantially(in composition), in terms of certain attributes, from the non-mobile population. Traditionally, comparisons between migrants and non-migrants at the origin are made "in reference to the study of selectivity; comparisons with the population at destination are made in reference to the search for differentials" (Elizaga,1970:140).

Before proceeding with the literature reveiw, it should be noted that Long(1973:243)[4] argued that there are "no universal migration differentials, with the exception of age" for at least three reasons:

the first being, that the mode of defining migration varies from country to country; the second being, that the "character of migration changes over time, i.e. a generation or two ago a large part of migration in the U.S. was best characterized as rural to urban...while to-day most internal migration is inter-urban in character"; and the third being, that the meaning of variables used as differentials has changed over time[5].

Even though it is believed that no universal differentials exist, it is quite clear, given the amount of material being generated, that the search for migration differentials is felt to be both a worthwhile and necessary undertaking, if one hopes to better understand the changing character of societies. Proceeding now with the literature review, as relates to migration differentials, the major focus will be upon two types of differentials. Namely, demographic differentials such as sex, age, marital status, family size[6], mother tongue and native-born status, and socio-economc differentials such as education, occupation, employment status and income.

3.1.1 Demographic Differentials

i. Sex

The research devoted to the search for the existence of a sex differential is perhaps, in quantity, second only to that of age. Traditionally, it has been argued that females are more mobile than males(George,1969; Ravenstein,1885; Stone,1968;1979); but that the existence of such a relationship is dependent upon the type of mobility being examined. That is, such a relationship exists when examining short-distance moves; whereas, the reverse is true if one is examining long-distance moves(George,1969; Shryock,1968; Stone,1969; Thomas,1938; Zachariah,1968).

Although the existence of a sex differential is not assumed to be universal, it has been proposed that the existence of/and type of relationship observed between sex and mobility is contingent upon:

> (a) where the migratory flow originates; (b) where it is directed; (c) what distance is involved in the migration; and (d) at what ages the migrants move(Simmons, et al., 1977:86).

As well, other researchers have proposed that the sex composition of migration streams change as the area being studied, goes from a developing type of economy to a more developed type of economy(Bogue,1969; Caldwell,1968; Simmons et al.,1977). For the most part the significance of this differential appears to be related to, or at least "heavily influenced by cultural, economic and ethnic variables[7] ."

Focusing now primarily on the operation of this differential in North America, those same factors as cited above are also assumed to influence the type of sex distribution found in migration streams As has already been noted, it is generally maintained that males are more migratory than females[8]. This finding is usually accounted for by the fact that "males are thought to be more exploratory and less confined by traditions(Shaw,1975:20)"; as well as "having higher rates of labour force participation" and a greater tendency to attend college(Shryock, 1964:349-350).

The operation of the sex differential(in Canada) is indicated in Tables 1 through 3. The major findings are that:

1. although a sex differential does exist, it's operation is not constant when examined in relation to origin community size. It appears that the largest differential exists within the rural

TABLE 1: FIVE YEAR INTERNAL MOBILITY RATES. PERSONS AGE FIVE YEARS AND OVER IN 1971, BY AGE AND SEX. FOR URBAN, RURAL, NON-FARM AND RURAL FARM, CANADA 1966-1971.

Age and Sex	Total	Urban	Rural Non-Farm	Rural Farm
		PER CENT		
5 years and over	45.1	48.4	41.8	18.0
Male	45.0	48.5	41.9	17.3
Female	45.2	48.2	41.6	18.7
20 - 24 years	65.9	68.7	62.2	30.0
Male	58.3	61.9	54.2	20.7
Female	73.5	75.3	71.0	44.8
25 - 29 years	78.0	81.2	71.7	42.5
Male	79.1	82.2	73.8	38.8
Female	77.0	80.1	69.4	46.6
30 - 34 years	63.6	67.2	57.4	31.0
Male	68.1	72.0	61.7	32.6
Female	59.0	62.4	52.8	29.3

Source: Stone (1978:24)

TABLE 2: MALES PER 100 FEMALES BY TYPE OF MIGRATION, 1956 - 1961.

Type of Migration	Males per 100 Females
Total Movers within Canada	99.6
Intra-Municipal	100.1
Intra-Provincial	98.1
Inter-Provincial (Continguous Province)	101.6
Inter-Provincial (Non-Continguous Province)	102.7

Source: George (1969:152)

TABLE 3: RATES[1] OF GROSS MIGRATION BY TYPE OF MOVEMENT BY AGE AND SEX 1956 - 61

Sex and Age	Sample Population in 1961	Total Movers	Intra-Municipal	Intra-Provincial	Between Continguous Provinces	Between Non-Continguous Provnices
MALES						
5 - 9	1,046,083	457	264	152	21	18
10 - 14	930,128	362	213	118	15	14
15 - 19	696,182	327	193	108	13	11
20 - 24	537,910	520	288	176	26	27
25 - 29	573,417	677	392	216	32	33
30 - 34	610.773	605	358	190	29	25
35 - 39	601,669	494	293	154	23	21
40 - 44	533,798	411	249	126	18	16
45 - 49	495,350	351	220	104	14	11
50 - 54	423,379	314	204	91	10	11
55 - 59	343,974	288	193	79	8	6
60 - 64	275,656	272	185	73	6	6
65+	622,791	255	166	74	7	7
TOTAL MALES	7,691,110	421	251	133	18	16

TABLE 3: CONTINUED

Sex and Age	Sample Population in 1961	Total Movers	Intra-Municipal	Intra-Provincial	Between Continguous Provinces	Between Non-Continguous Provnices
FEMALES						
5 - 9	1,000,787	455	262	152	21	19
10 - 14	893,212	365	217	118	15	14
15 - 19	672,516	390	219	140	16	13
20 - 24	559,461	672	358	249	32	29
25 - 29	572,107	663	377	220	32	30
30 - 34	605,755	544	321	172	25	23
35 - 39	618,786	448	270	137	20	19
40 - 44	539,746	374	231	112	15	14
45 - 49	483,270	332	214	95	12	10
50 - 54	403,290	307	206	83	9	7
55 - 59	328,745	290	194	79	8	6
60 - 64	276,566	287	193	77	8	7
65+	658,270	276	185	75	7	8
TOTAL FEMALES	7,661,511	427	254	137	18	16

1. Rate per 1000 sample population of indicated age and sex in 1961.

Source: George (1969:160)

group, with the difference favouring the female sex(Table 1)

2. generally speaking, as the distance moved increases, sex differential is more in favour of the male sex(Tables 2 and 3)
3. males are more migratory than females at all ages, with the exception of the first three age categories(5-19) and the last four age categories(50-65+)[9] (Table 3).

One point should be emphasized, and that is that although Table 3[10] illustrates the operation of the sex differential, there is reason to believe that comparisons made between males and females (of similar ages) obscures a very important point. Namely, that if mobility takes place within the context of life cycle stages, perhaps a sex differential does not really exist, especially if one compares males of one age group to females of a younger age group[11]."

Although it has been argued and is demonstrated to varying degrees in Tables 1 through 3, that males are more migratory than females[12] it has also been proposed that the existence of this differential is decreasing over time. The explanation for this convergence(at least in Canada)[13], is that female labour force participation is much greater to-day than it was in the past(Canada Manpower and Immigration, 1975:43). Obviously, as female labour force participation becomes more acceptable, it seems only reasonable to assume that female mobility will be influenced by the same sorts of factors that influence male mobility, i.e. the search for meaningful employment.

As this brief discussion of the sex differential has indicated, such a differential does appear to exist, but it's importance appears to be dwindling. Perhaps the most important conclusion to be drawn is that if one wants to demonstrate the existence of this differential it is necessary to study it's operation within the context of the type of movement, the origin of the movement, the stage of development of the economy and finally the cultural system within which the movement is taking place.

ii. Age

Perhaps the most extensively studied, as well as universally excepted migration differential, is the age differential(Bogue,1959; 1969; Bogue et al.,1953;1957; George,1969; Ladinsky,1967; McInnis,1971; McVey,1978; Rogers,1969; Shryock,1964; Simmons et al.,1977; Stone,1969; 1978; Thomas,1938; Zachariah,1968). Shaw(1975:18) points out that "regardless of the line of inquiry, research on migration generally corroborates the proposition that persons in their late teens, twenties and early thirties are more migratory than their counterparts."

There are a number of interpretations given for this particular relationship. Namely:

(a) the young are able to adapt to new situations more easily than the old who are more fixed in their ways(Shaw,1975:18)

(b) given the higher educational status of the young, the young are more aware of the opportunities available elsewhere and are more easily disposed towards spatial mobility as a means of taking advantage of these opportunities

(c) the desire to acquire more specialized educational training may necessitate mobility, i.e. student mobility(Grant and Vanderkamp, 1976:17)

(d) the young are more likely to be unemployed, consequently, mobility among the young is in response to the push of unemployment and the pull of employment opportunties(Ritchey,1976:379)

(e) since the young have longer working life spans ahead of them, the monetary costs associated with mobility can be discounted over a much longer period of time(Carvajal and Geithman,1974; Grant and Vanderkamp,1976; Sjaastad,1961; Speare,1971).

The relationship between age and mobility, though apparently straightforward, is in fact not a linear relationship. It is noted in Table 3 that:

1. there appears to be a time lag, in terms of mobility by sex. That is, females tend to have higher mobility rates at the age groups which are younger than the age groups found for males[14]
2. the young(5-19) have high mobility rates which gradually decrease up to age 15-24 [15] after which they increase and peak at ages 20-29 [16], at which point they once again start to decline[17].

Stone(1969:78) summarizes the existence of an age differential in the following way:

> A definite pattern of age selectivity characterizes Canadian internal migration, and this pattern has persisted for several decades. It is marked by a strong concentration of migrants in the peak ages for labour force entry, for family formation and child-bearing and in the early years of working life.

The relationship, between age and type of move, is quite clearly demonstrated in Table 3. It is sufficient to point out, that as distance increases(within categories of type of move), the young are more mobile that the old. In conclusion, what has emerged from the explanations offered for the existence of this differential has been a re-structuring of the line of inquiry, towards explaining the propensity to move within the context of "life cycle", which is to be discussed in the next section.

iii. Life Cycle

The existence of an age differential is deemed to be most important. Perhaps even more important is the realization

> that changes may be associated less with the biological process of aging than with the influence of age upon the individual's family membership(Lansing and Kish,1957:512).

There have been a number of classic works which have addressed the relationship between what has become to be known as life cycle indicators, and mobility(Leslie and Richardson,1961; Lansing and Kish, 1957)[18]. Lansing and Kish(1957) examined the relationship between stages of life cycle and the variation in six economic characteristics. Their conclusion was that these life cycle stages were better predictors of these economic characteristics than were age.

Leslie and Richardson(1961) expanded upon the work of Lansing and Kish and examined the relationship between life cycle, career patterns and mobility. They found that career patterns are most important in terms of explaining mobility, but that these career patterns operated within the context of life cycle stage[19].

The importance of life cycle as a determinant of mobility has also been shown to be important in the work of Rossi(1955), who looked at residential mobility arising from the interaction of housing satisfaction and household characteristics; Michelson(1977) who believed that residential mobility took place within the context of a "Family Mobility Cycle" which consisted of three stages[20]; and Morrison(1973) who argued that the "threshold of variability in the decision to move" is a function of life cycle.

For the most part, the life cycle concept has been very rarely considered in migration literature in the detail advocated by the aforementioned researchers. In part this has not been possible due to the extensive use of census data which cannot, or at least does not, tap the kinds of dimensions that are being advocated as mesures of life cycle or career pattern. As a result, the life cycle concept has focused primarily upon the effects of marital status and family size on mobility.

One of the most often cited variables relating to life cycle, is the marital status differential(Chevan,1971; George,1969; Long,1972; Speare,1970; Stone,1969;1978). The general finding is that the proportion of married individuals among movers is higher than the proportion among single and other marital status groups(Table 4). Shaw (1975:30) rightly points out that this difference can be attributed to the fact that most of the "adult population...can be expected to be married" and therefore such a result should be expected[21]. The conclusion being drawn by Shaw is that "the importance of marital status may lie primarily in marriage itself."

Stone(1969:80) points out, that in part this greater propensity among married individuals to move, may be due to the fact that marital status among those groups which are very mobile, may have changed during the censal period. As a result, those individuals that may have been single at that time of the move, may be shown to be married at the time that the census information was gathered. The implication of the previous statement is that marriage duration must be controlled for if one is to be completely, or at least clearly understand the marital status differential.

Chevan(1971:453-454)[22] has demonstrated that marriage duration is important. This research revealed that the highest mobility rates are found among those individuals that have been married for less than six years. This finding clearly lends credibility to the concern raised by Stone and supports Shaw's contention that the importance of marital status may lie primarily in "marriage itself."

As our concern also lies with discovering those factors that

TABLE 4:. MARITAL STATUS DISTRIBUTIONS(%) OF NON-MIGRANTS AND MIGRANTS AGED 15 AND OVER, BY SEX AND TYPE OF MIGRATION, 1956-1961

Marital Status in 1961	Non-Movers	Movers	Same Municipality	Intra-Provincial	Between Continguous Provinces	Between Non-Continguous Provinces
MALES						
Single	32.0	23.2	22.7	23.5	24.7	23.9
Married	64.0	74.1	74.3	74.2	73.3	74.3
Widowed and Divorced	4.0	2.7	3.0	2.3	2.0	1.8
TOTAL	100	100	100	100	100	100
FEMALES						
Single	24.0	18.5	18.3	18.8	18.1	17.6
Married	64.6	73.2	72.3	74.5	76.0	76.0
Widowed and Divorced	11.4	8.2	9.4	6.7	5.9	6.4
TOTAL	100	100	100	100	100	100

Source: George (1969:176)

differentiate movers by type of move, it is noted that there is very little variation in the marital status distribution by type of move (Table 4). In conclusion, it appears that the arguments for the existence of a marital status differential are inconclusive. This in part, is due to the effects of age, duration of marriage and changing marital status during the censal period.

The second most often cited variable which is used as a life cycle measure is family size(Chevan,1971; Long,1972; McVey,1978; Miller,1973; Speare,1970). It is generally believed that on the one hand, a large family size may deter or restrict mobility, especially long-distance mobility due to the monetary and non-monetary costs associated with mobility. On the other hand, it is also argued that family size may promote mobility(short-distance moves), in that as size increases, space demands increase. Consequently, mobility is prompted by the need to meet the changing space requirements of the family(Long,1972:37)[23].

Chevan(1971:454) argues that family size does in part account for the relationship between marriage duration and mobility. Not only is the formation of a family, in terms of marriage important, but perhaps even more important is the effects of "births and presence of children." Chevan notes that the effect of the birth of a child in "one period does not have the same effect as if it had occured in a previous period." The implication being that it is the first child "who puts the greatest strain on available space because this child ushers in household furniture and appliances unnecessary in the childless home."

The study by Chevan apparently addresses the question relating to the relationship between numbers of children and mobility. On the other hand, Long(1972) attempts to deal with the second aspect, that is how family size tends to restrict mobility as a result of the ties[24] that have been built up through having a family. It is proposed that mobility is dependent upon the ages of the children in question. Table 5 reveals that controlling for the age of head, the mobility rates are consistently higher for those families with children only under school ages than it is for those with some or all children of school age. It was also noted that where under school age, as well as school age children are present, the rates are higher than for those of "all" school age children families; but the rates are closer to the rates of "all" school age children than "all" under school age children.

Returning to one of the original concerns, that is the relationship between family status and type of move, Table 5 indicates that: (i) distance moved is inversely related to family size; and (ii) distance moved is inversely related to family size with the effect of age of children acting in the same manner as described above, i.e. propensity to move long-distances is inversely related to both the number and number of children of school ages.

Apparently, family status does have a differential effect on propensity to move and distance moved. It should also be pointed out that there has been a suggestion made that "life cycle should be used as an alternative control to age"(Speare,1970:449). Both Speare and Long (1972) have demonstrated that life cycle and age do have independent effects on propensity to move. It is argued by both that "if life cycle were the prime determinant of mobility, then there should be little variation according to age of family head." Such was obviously not the case, for these researchers noted that a great deal of variation still existed among family heads of different ages but at the same family life cycle stage(Long,1972:374).

In this section our objective has been to examine the literature on

TABLE 5: MARRIED MEN WITH WIFE PRESENT - PERCENT GEOGRAPHICALLY MOBILE DURING PRECEDING TWELVE MONTHS, ACCORDING TO AGE AND NUMBER OF AGES OF OWN CHILDREN UNDER 18, FOR 1968, 1969 and 1970

Age and number and ages of own children	Number	Percent Residentially mobile [a]	Percent Moving within counties	Percent moving between counties	Percent moving between states
25 to 34 years old					
No own children under 18	4,616	43.3	27.7	15.6	8.6
One own child	5,944	35.1	22.0	13.1	6.8
Under 6	4,961	37.1	22.9	14.2	7.4
6-17	982	25.3	17.5	7.8	3.8
Two own children ...	8,775	26.0	16.3	9.7	5.2
Both under 6	4,534	29.4	17.8	11.8	6.0
One under 6	2,664	23.0	16.0	7.0	3.8
Both 6-17	1,577	21.2	12.4	8.8	5.2
Three own children .	5,120	23.6	13.9	9.7	4.4
All under 6	1,087	31.9	20.2	11.5	5.4
Two under 6	1,509	22.6	12.9	9.7	4.6
One under 6	1,722	22.5	12.4	10.1	4.4
None under 6	803	16.4	10.5	6.0	2.6
Four or more	3,683	23.5	15.4	8.1	3.8
Three more more under 6	1,099	26.2	17.1	9.4	4.2
Two under 6	1,150	23.7	15.6	8.1	3.9
One under 6	1,043	20.9	14.4	6.5	3.0
None under 6	390	21.8	13.3	8.7	-
35 - 44 years old					
No own children under 18	3,258	20.3	13.5	6.7	3.5
One own child	4,595	14.8	10.1	4.7	2.5
Under 6	984	23.6	16.2	7.3	4.4
6-17	3,611	12.5	8.5	4.0	2.0
Two own children ...	7,550	13.1	7.8	5.3	2.9
Both under 6	656	25.2	14.2	10.8	6.7
One under 6	1,591	15.2	9.7	5.3	2.7
Both 6-17	5,303	11.0	6.4	4.6	2.5

TABLE 5: CONTINUED

Age and number and ages of own children	Number	Percent Residentially mobile [a]	Percent Moving within counties	Percent moving between counties	Percent moving between states
Three own children .	6,366	13.9	7.9	6.0	3.5
All under 6	150	25.3	17.3	-	-
Two under 6	516	16.9	9.1	7.8	-
One under 6	2,029	14.9	7.9	7.0	4.0
None under 6	3,671	12.4	7.4	5.1	3.1
Four or more	7,404	13 9	8.8	5.2	2.9
Three or more under 6	519	20.2	15.6	5.0	-
Two under 6	1,415	14.1	9.1	5.0	3.0
One under 6	2,830	13.6	8.2	5.4	2.6
None under 6	2,643	12.9	7.9	5.0	3.2
45 to 54 years old					
No own children under 18	11,628	9.5	6.6	2.9	1.4
One own child	7,158	8.5	5.5	3.0	1.6
Under 6	332	18.1	12.3	6.0	-
6-17	6,827	8.0	5.2	2.8	1.5
Two own children ...	4,860	8.3	5.4	2.9	1.3
Both under 6	74	-	-	-	-
One under 6	471	12.3	7.6	4.5	-
Both 6-17	4,316	7.6	4.5	2.6	1.4
Three own children .	2,332	9.2	6.1	3.1	1.8
All under 6	14	-	-	-	-
Two under 6	85	10.9	-	-	-
One under 6	422	8.3	7.8	-	-
None under 6	1,810	8.3	5.4	2.9	1.3
Four or more	2,228	11.4	7.5	4.0	2.4
Three or more under 6	95	22.1	-	-	-
Two under 6	233	15.9	11.2	-	-
One under 6	763	10.9	7.5	3.5	-
None under 6	1,137	10.1	6.2	3.9	1.3

... Fewer than 20 observations.
a - Excludes movers from abroad.

Source: Long (1972:377-378)

the relationships between the traditionally used demographic variables and mobility behaviour. Quite clearly, there exists evidence to support the contention that migration behaviour (both propensity to move and type of move), is related to these various individual characteristics; and it is these individual attributes which account for the differential responses to the structural conditions or opportunity structures at both origin and destination.

Before proceeding with a review of the Canadian migration literature, it is necessary to briefly review the literature that deals with those variables, that have traditionally been used to represent the socio-economic characteristics of the individual[25].

3.1.2 Socio-Economic Differentials

1. Education

The study of education as a significant factor in differentiating the non-mobile from mobile population, has been the focus of a large number of studies(Beshers and Nishiura,1961: Bogue _et al_.,1953;1957; Bogue,1959; Hamilton,1959; Lansing and Mueller,1967; Marr _et al_.,1978: Shryock and Nam,1965; Simmons _et al_.,1977; Thomas,1938). These classics, to varying degrees, have demonstrated that there is a direct relationship between education and mobility, i.e. the higher the educational level, the greater the probability of moving. Stated in another way which is more in keeping with the traditional definition of selectivity and differentials; "migrating peoples include proportionately more of the better educated persons than non-migrants regardless of age, sex, colour or direction of movements...(Shaw, 1975:23)."

Examination of Table 6 demonstrates the existence of this education differential, as well as the effect of education on distance moved. Two

TABLE 6: RELATIONSHIP BETWEEN LEVEL OF SCHOOLING AND MOBILITY BEHAVIOUR*

Level of Schooling		Movers		
	Non Movers (%)	Same Municipality (%)	Different Municipality Same Province (%)	Different Province (%)
Elementary	41.2	35.2	27.0	18.0
Secondary	51.0	55.4	59.5	63.0
University	7.8	9.1	13.6	19.0
Total	100	100	100	100

*(Change of residence between 1966 and 1971 for population 15 years and over not attending school full-time).

Source: Canada Manpower and Immigration (1975:36) things, though not apparent from Table 6 should be kept in mind. Namely: (a) the flows represented in Table 6 are gross flows and one of the reasons for the observed patterns is the effect of age selectivity. The younger more mobile age groups have higher educational levels than the older groups(Canada Manpower and Immigration,1975:35); and (b) the education differential is particularly strong in urban areas because the urban areas are where the higher education facilities are located. As a result, part of this differential can be attributed to the "search for higher education...rather than a manifestation of differences in mobility rates for groups which have completed their education"(Stone, 1969:84)[26].

As has already been stated, part of this pattern can be explained by the age composition. Long(1973) has explored the operation of the education differential, not only its effects within age groups, but also the effects by age and occupational group for males 25 years old and over in non-farm occupations. He noted that the effect of education appears to be operating in the expected direction even within age catergories.

As well, Long(1973:244-246) noted that in terms of "the number of years with moves a person can expect in his lifetime, the relationship between education and mobility from this point of view no longer appeared to be direct, but is U-shaped. This was attributed to the fact that "men at educational extremes can expect more changes of residence over the course of a life-time" as a result of a "greater frequency of job changes"[27].

Perhaps the most notable finding made by Long(1973:248-249) was that he was able to demonstrate that "education and occupation predict migration about equally well", but that education does so more efficiently, i.e. he noted that "within each of the occupational groups, increasing education is generally strongly associated with higher migration rates." The conclusion being drawn was that education "influences the choice of occupation, but once an occupation is entered, education continues to exercise a strong influence in terms of predisposing individuals toward migration"[28].

Generally speaking the direct relationship between educational status and mobility has been attributed to two factors(Stone, 1978:35): (a) "educational attainment is directly related to the aspiration for improvement in one's perceived social status, and the stronger this aspiration becomes the greater will be the search for new opportunities"; and (b) educational level influences "the tastes for and adaptability to a variety of social and cultural milieux"[29].

Most of the recent work done on education differentials has focused on the first factor cited above. Although the second factor is also important, further discussion of this factor will be left for the time being.

It is generally accepted that education expands an individuals awareness to economic opportunities(Carvajal and Geithman,1974: Ritchey, 1976; Simmons et al.,1977) and as education increases, responses to these economic inducements vary directly(McInnis,1971:202). For example, Lansing and Mueller(1967:61) found that among movers, the percent of heads of families citing economic motivations for moving ranges from a low of 59% for those with grade eight or less to 80% for those with a college education.

It is also important to note, that in addition to increasing awareness to opportunities elsewhere, education also results in the acquisition of more specialized skills(DeJong and Harbison,1981:283).

Hence, acquisition of specialized skills may induce mobility or at least partially account for higher mobility among the better educated, because mobility is seen as a means, when used in conjunction with information on opportunities, of getting a better return on investment(the cost of acquiring the skills)(Courchene,1970; Greenwood and Sweetland,1972).

Coupled with the increasing of awareness about opportunities, "education also increases the individuals capability to obtain and analyze information and to use more sophisticated information sources" (Schwartz,1973:356). Perhaps the most comprehensive analysis done in this regard is the work of Lansing and Mueller(1967). They noted that: (a) there was a direct relationship between the number of sources of information used and alternatives considered, and education; and (b) that the more educated groups were more likely to have a job prearranged before moving.

Considering these findings, it appears that education not only serves to increase awareness to opportunities elsewhere, but also serves to increase the ability to evaluate that information. Placed within the context of a cost-benefit framework, "education increases the benefits (in terms of information and earnings); while at the same time decreasing the costs of moving" by reducing the "uncertainty" of unemployment at the destination(Carvajal and Geitham,1974; Courchene,1970:556)[30].

The preceding discussion on increased awareness of opportunities (information) and efficient and effective use of this information helps to explain one of the points previously alluded to but not discussed, i.e., the association between education and type of move(distance). It is clearly evident from Table 6, that as educational status increases, distance moved increases. In part, this direct relationship can be attributed to the following:

1. education and income are highly correlated. Consequently, those individuals with higher educational status would be better able to afford not only the cost of relocation, but also relocation at greater distances(Courchene,1970; Long,1973; Vanderkamp,1968)
2. the awareness space is obviously increased as a function of the more extensive and varied sources of information utilized by the more educated(Lansing and Mueller,1967)
3. the more education one has, the greater the employment opportunities, not only at home but also far away(Greenwood,1968:192).

Another possible explanation for this relationship between education and propensity to move, as well as distance moved is clearly related to the adaptability factor alluded to earlier. Specifically, that education influences "tastes for and adaptability to a variety of social and cultural milieux"(Stone,1978:35). That is, citing of economic as opposed to family reasons for moving, increases with educational status(Lansing and Mueller,1967:61). Given this relationship and the finding that generally "respondents with high education are much more likely than those will less education to reside in areas in which they have no relatives"(Lansing and Mueller,1967:134); and given the sources of information utilized by movers, it would seem to indicate as Ritchey (1976:392) has proposed, "that migrant's relatives and friends are subject to the same constraints that influence the migrants choice of destination." The conclusion being drawn is that, on the one hand, friends and relatives promote mobility if absent and hinder mobility if present. For example, Greenwood and Gormerly(1971:148) have argued that friends and relatives serve as a better income substitute for the lower income groups than for the better educated and higher income groups.

Once again the inference being that better educated individuals are better equipped, or at least more able, to adapt to different or unfamilar surroundings.

As can be seen from the discussion just concluded, understanding the operation of the education differential, is very difficult due to the effect of education on the other personal characteristics that have traditionally been used to study migration. One of the conclusions drawn by Long(1973:257) is that over time the ability to predict mobility on the basis of educational attainment may be diminished as a result of the changing meaning of the variable education, i.e., as "the proportion of persons going to college increases and they become a less select group."

ii. Occupation

The search for/and study of the operation of the occupation differential has drawn considerable attention(Beshers and Nishiura,1961; Grant and Vanderkamp,1976; Ladinsky,1967;1967a; Lansing and Mueller, 1967; Marr _et al_.,1978; Simmons,1968; Simmons _et al_.,1977; Stone; 1969;1978;1979), perhaps as much attention as the previously discussed education differential. The traditional relationship between occupation and mobility is very similar to the relationship found between education and mobility. Intuitively, this makes sense for as Stone(1969:88) points out, "education influences occupation... Occupations involving technical and professional skills require higher levels of educational attainment."

It is noted in Table 7 that the relationship is such that those in the more highly skilled occupational groups are more mobile than those in the less skilled occupations. Before proceeding, it is important to deal with some problems or at least exceptions, to what appears to be a

TABLE 7: PERCENTAGE DISTRIBUTION AMONG MOVEMENT-STATUS GROUPS FOR SELECTED OCCUPATION GROUPS, MALES IN THE EXPERIENCED LABOUR FORCE BY AGE GROUP, CANADA 1956 - 1961.

			MOVERS WITHIN CANADA		
Occupation and age groups	Population reporting	Non-movers	Intra-municipal	Intra-provincial	Inter-provincial
'White Collar' -					
15 and over	100.0[a]	48.2	29.3	17.4	5.1
20 - 34	100.0	29.0	38.3	25.2	7.6
35 - 44	100.0	47.2	29.5	17.8	5.4
45 - 64	100.0	65.1	21.7	10.5	2.8
Managerial -					
15 and over	100.0	53.1	26.7	15.6	4.7
20 - 34	100.0	26.0	39.8	26.5	7.8
35 - 44	100.0	49.4	27.9	17.1	5.6
45 - 64	100.0	66.3	20.5	10.3	2.9
Professional and Technical -					
15 and over	100.0	41.8	28.6	22.4	7.2
20 - 34	100.0	34.7	39.3	21.1	10.0
35 - 44	100.0	42.3	29.3	21.1	7.3
45 - 64	100.0	63.4	20.0	12.9	3.6
Clerical -					
15 and over	100.0	49.2	32.2	14.8	3.8
20 - 34	100.0	34.7	39.3	20.3	5.7
35 - 44	100.0	51.0	32.4	13.6	3.0
45 - 64	100.0	66.2	24.2	8.1	1.6
Sales -					
15 and over	100.0	46.0	31.4	17.8	4.8
20 - 34	100.0	29.9	39.8	23.5	6.8
35 - 44	100.0	45.0	30.6	19.3	5.1
45 - 64	100.0	61.8	24.4	11.2	2.7
'Blue Collar' -					
15 and over	100.0	55.5	27.5	13.5	3.5
20 - 34	100.0	36.4	37.9	19.9	5.8
35 - 44	100.0	55.4	27.8	13.2	3.6
45 - 64	100.0	70.8	19.7	8.1	1.4
Service and Recreation -					
15 and over	100.0	41.8	31.4	15.4	11.4
20 - 34	100.0	21.6	37.7	21.1	19.5
35 - 44	100.0	37.2	30.5	16.9	15.4
45 - 64	100.0	56.8	28.4	10.8	3.9

TABLE 7: CONTINUED

Occupation and age groups	Population reporting	Non-movers	MOVERS WITHIN CANADA		
			Intra-municipal	Intra-provincial	Inter-provincial
'Blue Collar' - (Concluded)					
Transport and Communication					
15 and over	100.0	46.8	34.2	15.8	3.2
20 - 34	100.0	29.7	43.5	21.9	4.9
35 - 44	100.0	50.8	32.6	14.0	2.6
45 - 64	100.0	67.5	22.8	8.5	12.
Farmers and other primary -					
15 and over	100.0	75.8	13.8	8.7	1.7
20 - 34	100.0	59.9	22.4	14.3	3.4
35 - 44	100.0	75.0	14.6	8.7	1.7
45 - 64	100.0	84.6	9.2	5.4	0.8
Craftsmen, production process and related workers -					
15 and over	100.0	50.4	31.7	15.1	2.7
20 - 34	100.0	31.6	42.3	21.7	4.3
35 - 44	100.0	52.7	30.6	14.3	2.4
45 - 64	100.0	67.5	22.4	8.9	1.3
Labourers, not elsewhere classified -					
15 and over	100.0	52.0	31.3	13.6	3.1
20 - 34	100.0	38.8	38.5	17.8	4.9
35 - 44	100.0	49.2	35.3	13.0	2.6
45 - 64	100.0	64.6	25.5	8.6	1.3

a The percentages may not add to the total due to rounding error.

b Farmers, farm labourers, fishermen, hunters and trappers, and loggers.

Source: Stone (1969:98-99)

fairly straight forward direct relationship.

Ladinsky(1967:1967a) in his study of mobility among professional workers has pointed out that occupation may in fact act as a deterrent to mobility[31]. In fact, Ladinsky found that among professionals, the more mobile professions are clergymen, lecturers and engineers; while the least mobile professionals are self-employed workers such as dentists and lawyers, whose mobility is constrained by the need to purchase costly equipment and the dependence upon a "cultivation of clientele."

A study by Grant and Vanderkamp(1976), as well as the review by Willis(1974) adds further support to the contention that occupation can act as a constraint. They noted that among production workers and craftsmen, mobility rates were low. This was attributed to the "geographical concentration of manufacturing industries, the relative immobility of union members and the low unemployment rates for this group."

Grant and Vanderkamp also noted that mobility rates were higher for those in primary industries(except fishing) and construction. This contradictory finding is explained in part by the "high rate of labour turnover caused by seasonal fluctuations in employment[32].

Stone(1969:89) makes an important point when he argues that in Canada, since the 1950's there has been a great increase in demand for labour in the service and recreationl fields. As a result of this increasing demand and the ease with which individuals can move into these occupational groups, it has been argued that occupational mobility "may have operated jointly with geographical mobility; thus the conclusion that geographical mobility may serve as a means, or at least as the vehicle for occupational mobility[33].

In part the conflicting evidence supporting the existence of an occupation differential[34] is attributed to the way in which the search has been carried out. Returning to education for one moment, Thomas (1938) found conflicting evidence for the support of an education differential, i.e., the effect of education varied with the type of movement or stream being studied. Given the relationship between education and occupation, the conflicting evidence supporting the relationship between occupation and mobility, is easy to understand.

Beshers and Nishiura(1961:218) were able to demonstrate that the occpuational differential did vary depending upon the stream or type of movement that was being studied. As a result, the study of occupational differentials, took on a different plan of attack(Bogue,1959; Kirchenbaum,1971; Marr et al.,1977; Stone,1971;1979; Tarver,1964). That is occupational differentials were studied within the context of various streams.

The importance of looking at occupation differentials within this context is based upon the premise[35] that individuals differentially respond to the existence of job opportunities. Kirchenbaum(1971:321) for example, found that such processes as "decentralization and industrial relocation" had "minimal effects upon the volume of migration", but that the "changes in the employment structure of...areas are an influential factor" given the characteristics of the mobile population[36].

Just as these studies offered evidence which supported the contention that occupational differentials are important, if studied within the context of certain streams, Stone's work in 1971 and his subsequent work[37] served to further emphasize this point. The pertinent findings of Stone(1979:17-22)[38] are that: (i) the job opportunities which are present in a region, are largely determined by "the industrial composition and technology of production" in that region. It is therefore argued that as growth rates in these various industries grow, remain the same or decline, the occpuational composition, in terms of opportunities varies; thereby, influencing the compostion of the migrant group responding to the opportunity structure; and (ii) just as the destination effect(pull) is important, it is also proposed that the age, education and occupational composition among the non-migrant population (at both origin and destination) is important. The inference being that in- and out- flows will be dependent upon the number of individuals competing for these opportunties.

Shaw(1975:27) succinctly summarizes these findings in the following statement: "although occupational selectivity appears to be significant in accounting for who migrates in specific socio-economic contexts, the importance of this factor depends heavily upon contrasts between the sending and receiving areas within these contexts."

Up to this point the focus has been primarily upon occupation differentials and the propensity to move, and not upon occupational status and type of move. In addition to illustrating the existence of the occupation differential, Table 7 illustrates the relationship between occupation and type of move. Generally speaking, it is found that the higher status occupational groups, not only tend to be more mobile, but tend to move longer distances. In fact, this pattern and the reasons for this pattern are somewhat similar to the explanations offered in the preceding section(education differentials). Namely:

(i) higher status occupation groups are more likely to be in demand at both the national and local levels(Miller,1977; Richmond,1969)

(ii) "occupational attachment tends to be higher where there is a relatively long period of training and where the cost of changing occupation group is high"(Willis,1974:23)

(iii)the higher status occupational groups are better able to afford the costs of moving and are also more likely to purchase information, which consequently reduces the risks and uncertainty of acquiring employment(Greenwood and Gormerly,1971:148)

(iv) the psychic costs are less important for these high status groups (Marr et al.,1977:78)[39]

(v) higher status individuals, it was argued, were more likely to base their decision to move on "orthodox economic factors"[40](Marr et al., 1978:78).

In conclusion, there does appear to be an occupation differential, not only in terms of propensity to move but also by type of move. Perhaps even more important than the demonstration of the existence of such a differential, is the belief that, occupational composition (at both origin and destination) and the stage of development of the area, have important ramifications in terms of determining the composition of the migration stream.

iii.Employment Status

One of the most difficult differentials to study is the employment status differential[41]. The effect of unemployment as a push factor, as well as a constraint(inability to finance the move), has to a certain degree been discussed in the previous chapter under the section dealing with economic approaches. Consequently, further discussion will not be undertaken, except to once again state that these economic models have attempted to explain in- and out- flows from regions, on the basis of the probability of their being a job in the destination region, i.e., explaining net migration rates using unemployment rates at both the origin and destination, as indicators of the likelihood of becoming employed at the destination(Courchene,1970; Greenwood et al.,1981; Greenwood,1968; Lowry,1964; Miller,1977; Vanderkamp,1968).

The information, on the other hand, which examines the employment status differential in the more traditional demographic sense is both limited and sketchy(Grant and Vanderkamp,1976; Lansing and Mueller,1967; Neilsen,1974; Vanderkamp,1973). Nielsen(1974:7-8) in discussing Vanderkamp's findings (Table 8) points out that in fact, unemployment does "tend to encourage mobility." For example, the mobility rates for unemployed and employed individuals is 62.7% and 27.7% respectively. As well, Nielsen is quick to point out that these findings should not be "interpreted to mean that mobility will rise with an increase in the general unemployment level" and offers as evidence the fact that, though unemployment was very low in 1966, the number of "inter-provincial migrants reached a peak in 1966-1967."

Grant and Vanderkamp(1976:21-22) provide further evidence to support the relationship between unemployment and mobility, but also make the point that "duration of unemployment' is most critical for the following reasons. Specifically:

1. those with short periods of unemployment have high mobility rates and are "usually seasonal workers and as such are highly mobile"
2. as duration of unemployment increases, the mobility rates fall[42]. This finding is attributed to the fact that: (a) ability to finance the move will decrease with duration of unemployment (b) "aspiration wage of a worker is likely to decline during long periods of unemployment"[43] (c) a selection factor is acting in

TABLE 8: MOBILITY RATES FOR EMPLOYED AND UNEMPLOYED, 1966-67

Moves involving	Employment Status	
	Employed	Unemployed
Occupation	4.2	3.4
Industry	9.9	20.3
Province	1.0	1.5
Occupation and industry	11.0	33.6
Occupation and province	.2	.2
Industry and province	.5	1.0
All three	.9	3.0
No change	72.3	37.3

Source: Vanderkamp (1973:24)

that the "unemployed group loses it's most mobile and perhaps most employable members because of the migration process itself"

3. mobility rates have a slight tendency to increase for extremely long periods of unemployment[44] due to the strong "inducement to move" as a result of the feeling that employment in the present environment is hopeless and insurance benefits are to shortly run out or expire.

In general, the existence of an employment status differential is rather vague. Perhaps the best way to summarize its action is given by Lansing and Mueller(1967:77) who state, "that unemployment constitutes a push which leads people to move if they are young, well-educated and trained or live in a small town. In the absence of such characteristics, unemployment is highly unlikely to over-come the reluctance to move, unless the unemployment is prolonged, the income loss substantial and the family has no alternative local source of support."

iv. Income

Traditionally, the operation of the income differential has been of most interest to those that have concerned themselves with economic interpretations of mobility. The focus has been primarily on the determination of income elasticities[45] and the effect of relative wage rates at both origin and destination which act as push and pull factors (Courchene,1970;1974; Greenwood et al.,1981; Greenwood,1968; Greenwood and Gormerly,1971; Greenwood and Sweetland,1972; Labor and Chase,1969; Lansing and Mueller,1967; Lycan,1969; McInnis,1969; Vanderkamp,1968). The assumption in these studies is that the structural conditions of the environment(both origin and destination), as measured by wage rates provides the motivation for making a decision to move.

Lansing and Mueller(1967:77-78) point out that "apart from the desire to escape unemployment or find steadier work, one would assume that mobility will result from the search for jobs which are more renumerative." In fact, they found that when given reasons for moving "income incentives were mentioned almost twice as frequently as employment incentives." As well they point out a difficulty with attempting to explain this motivation. That is, it is difficult, if not impossible, to say definitively that: (i) persons of low income move to secure better paying jobs or (ii) that individuals with "satisfactory incomes prior to the move" see the possibility of raising income levels even further through mobility.

Shaw(1975:70-71) points to a number of reasons for the problems with this type of economic analysis. Namely that:

1. earnings are assumed to be constant, which if the time period is large, is a fallacious assumption
2. these models fail to account for, or at least imply that migration does not take place from high income places to low income places. Shaw argues that in fact some individuals from "high income places can find more favourable income opportunities in low income states"
3. these models do not and cannot take into account "occupation and training relative to income that migrants are likely to earn at alternative destinations"
4. migrants don't always stay in the same occupational group after the move, that they were in prior to the move. Consequently, the cost-benefit analysis done using occupational classification prior to the move, does not "parallel the migrants own utility calculus" after the move

5. not all individuals, as was previously mentioned make this cost-benefit calculation.

If we turn now to the more conventional demographic examination of the income differential; perhaps the relationship is best stated by Stone(1969:100) who found a "marked difference in income between movers and non-movers and between intra- and inter-provincial migrants." The direction of this relationship was that as income increased, propensity to move and distance moved increased. There need be no explanation for this relationship, given that it is generally accepted that education, occupation and income are correlated with one another.

Before proceeding, it should be pointed out that there does appear to be evidence which does not support the linear nature of this relationship. For example, Bogue(1969) argues that the highest migration rates tend to occur among intermediate-income categories followed by high- and then low-income categories(controlling for age). Grant and Vanderkamp(1976:20), as well as Canada Manpower and Immigration(1975) argue that in fact it is a U-shaped relationship; with low- and high-income groups having the highest rates of mobility. The explanation being offered is that low income groups move to increase earnings; while high income groups move because it is a requirement of employment.

Perhaps the most important finding to come out of the search for an income differential, has to do with the returns(income) to be gained from making a move(Ritchey,1976:383). There is evidence to support the notion that individuals that are mobile make greater income gains than those that did not move; as well, as the distance moved increases, the income gains increased(Carvajal and Geitham,1974; Courchene,1974). Table 9 in addition to illustrating this point shows that income gains are greater as the length of time in the destination increases.

TABLE 9: MIGRATION STATUS AND INCOME PATTERNS BY AGE GROUP[a]

Income Year($)	Stayers	Intra-Provincial Movers[b]	Inter-Provincial Migrants[b]	
			in	out
5-29 age group				
1965 average income	3443	3883	3291	3291
1966 average income	4283	4297	4161	4161
1968 average income	5415	5581	5685	5685
1966/65 ratio	1.24	1.27	1.26	1.26
1968/66 ratio	1.26	1.30	1.37	1.37
1966-65 difference	840	914	870	870
1968-66 difference	1132	1284	1524	1524
30-44 age group				
1965 average income	5969	5723	6700	6700
1966 average income	6622	6412	7298	7298
1968 average income	7698	7274	8691	8691
1966/65 ratio	1.11	1.12	1.09	1.09
1968/66 ratio	1.16	1.13	1.19	1.19
1966-65 difference	653	689	598	598
1968-66 difference	1076	862	1393	1393
45-64 age group				
1965 average income	5947	5355	6671	6671
1966 average income	6378	6004	7268	7268
1968 average income	6907	6014	7546	7546
1966/65 ratio	1.07	1.08	1.09	1.09
1968/66 ratio	1.08	1.00	1.04	1.04
1966-65 difference	431	449	597	597
1968-66 difference	529	10	278	278
all ages				
1965 average income	5237	4437	4865	4865
1966 average income	5868	5208	5610	5610
1968 average income	6772	6158	6902	6902
1966/65 ratio	1.12	1.17	1.15	1.15
1968/66 ratio	1.15	1.18	1.23	1.23
1966-65 difference	631	771	745	745
1968-66 difference	904	960	1292	1292

a. Total income consists of wages and salaries, rent, interest and dividends, and profit. 1966 incomes are used to establish income classes.

b. These are persons who moved between spring 1967 and spring 1968.

Source: Courchene(1974:53)

In conclusion, one can therefore say that the study of income differentials has perhaps been most useful in terms of explaining the rationality of migration (in terms of net migration) at the aggregate level. Given the complex action of income as a motivating factor, and its relationship to the previously discussed socio-economic attributes, it is perhaps best to simply state that the income differential operates in much the same manner as do those variables with which it is correlated.

In this section our objective has been to review the literature, as it relates to the operation of the socio-economic differentials that are traditionally used to study migration. It seems apparent, that although the conclusions being drawn are somewhat contradictory, it is generally felt that the propensity to move, as well as distance moved is directly related to socio-economic status. This is most often attributed to the fact that: geographic mobility is seen as a means of promoting social mobility; the opportunity structure and awareness of that structure is directly related to status; and the ability to make greater gains through mobility is increased with social status.

At the outset, it was stated that no universal differentials, with the exception of age appeared to exist. Although the just concluded review, tends to support that statement to varying degrees, it is also fairly evident that such may not actually be the case. In part, the truth of that statement lies in the way in which these differentials have been studied. It is quite possible, that were it possible to examine the operation of these differentials within the context of different societies comparitive position on a development continuum, that there would in fact be reason to believe that universal migration differentials[46] do exist.

3.2 Canadian Migration Studies

One notes in examining the Canadian literature on migration that there have been two major lines of inquiry which have been utilized in the study of this complex demographic process. Namely:

First, much of the work done in this area has been carried out within the context of an economic framework, with the major emphasis being placed upon labour migration and the economic causes and effects of migration(Courchene,1970;1974; Grant and Vanderkamp,1976; Labor and Chase,1971; Lycan,1969; Marr et al.,1977;1978; McInnis,1971; Nielsen, 1974; Vanderkamp,1968;1971).

These economic studies migration have traditionally incorporated variables that tend to describe the areas of the origin and the destination, i.e., the plusses and minusses found at both the origin and the destination[47]. It is quite apparent in looking at material that it is clearly an outgrowth or an application of the work done by: Zipf (1946) who proposed that "migration between two places is directly proportionate to the product of their sizes" and inversely related to the distances separating the places; Stouffer(1940;1964) who proposed that migration is a direct function of the opportunities at the destination plus an inverse function of the opportunities between the destination and the origin and an inverse function of the number of other migrants competing for opportunities at the destination; Lowry (1966) who proposed that migration or movement of the labor force was a function of the size of the labour force(at both origin and destination), percentage of the labour force unemployed at both the origin and the destination, hourly wage rate at both origin and destination and distance between origin and destination; and Sjaastad (1962) who treated migration as an investment from which one expects to receive sufficient returns to offset the costs to the individual of moving.

It is quite apparent that most of the Canadian literature has adopted a framework which appears to be a combination of the Lowry and Sjaastad framework, with the most comprehensive work being done by Courchene(1970;1974), Vanderkamp,(1968) and Grant and Vanderkamp (1976)[48].

Second, most of the work done prior to the 1961 Census, has been primarily descriptive in nature, i.e., the reporting of migration rates (net migration) for various provinces, regions and areal units(urban-rural). The major objective being the identification of migration streams for the various inter-censal periods. Perhaps the most comprehensive and most representative example of this type of analysis was done by Anderson(1966), who attemped to describe internal population shifts in Canada during the 1921-1961 period.

Since the 1961 Census, the amount of work done in the migration area has greatly increased relative to the work done prior to 1961, but as we see in examining the literature, the amount of work done in a strictly demographic sense, has not been significant in number(Canada Manpower and Immigration,1975; George,1970; Kalbach,1970; Kalbach and McVey,1971;1979; Krishnan,1980;1981; McVey,1978; Stone,1969;1971;1978; 1979).

With the administration of the 1961 census and the posing of the "five year migration question"(Stone,1978:17)[49] two very comprehensive monographs on internal migration were completed(George,1969; Stone, 1969). For the first time, it appears that in addition to identifying the patterns of internal migrations(streams etc.), there was also work done which related to the determination of differentials in Canada (movers versus stayers; movers by type of move).

Prior to summarizing these findings, it would be useful to briefly review some of the findings as relate to the population re-distribution that occurred in Canada. Although our concern is not with this particular aspect of migration, it is important for as was noted in the preceding section, migration and the selective nature of migration changes or at least mirrors the changes that have occured in society.

Over the past forty years (1931-1971) the pattern of internal re-distribution in Canada has undergone, in some cases substantial changes. Specifically:

(i) the Maritimes have been net losers of population[50]

(ii) Quebec, until the peak of 1951-1961 had been a net gainer. For the period 1961-1971 Quebec was a net loser, apparently resulting from a drop in in-migration and an increase in out-migration[51]

(iii)Ontario, which at one time had made large gains from internal migration has seen an ever-increasing net migration rate peak during 1951-1961 period[52] with a declining trend presently being noted

(iv) the Prairie provinces, especially Manitoba and Saskatchewan have been consistent losers during this time period. In the case of Manitoba, the loss has been fairly constant; whereas there have been more pronounced fluctuations in the case of Saskatchewan[53]. Alberta, on the other hand, has shown a positive net migration position throughout this period

(v) British Columbia, during this period, has shown the highest net migration rate of all the provinces, although the rate is declining[54].

This particular aspect of migration is very important for it represents the changing opportunty structure as well as individual response to that changing structure; however, it is perhaps easiest to explain the character of this re-distribution in Canada in the following way:

> provinces of destination were more industrialized and more urbanized, and were characterized by a higher stage of economic development than the provinces from which the migrants came(George,1969:187).

Before proceeding with a summary of the findings, as relates to the usual demographic and socio-economic differentials, it should also be noted that the stream of migration, rural-urban movement[55] has changed over time.

It is sufficient to note that as Canada became more urbanized and industrialized, the pattern of rural-urban movement, found in traditional agrarian socities changed. That is, movement from rural to urban areas was replaced by the dominant stream of an inter-urban movement(George,1967:137). The second dominant stream was the rural farm to rural non-farm and urban to rural-nonfarm type of stream. Kalbach and McVey(1971:107) point out that this type of circulation was in part largely responsible for the great growth demonstrated by the suburbs.

Central cities grew as a result of natural increase[56], the suburbs grew as a result of this urban to rural non-farm movement which represented "the outward expansion of the large urban centres." In summary, this aspect of the migration phenomenon, has had "little effect on the regional distribution of the Canadian population but has been a significant factor for the internal structuring of urban populations" (Kalbach and McVey,1979:139).

Turning now to the findings that deal with the operation of the traditional demographic and socio-economic differentials, within the Canadian context[57]; but only those differentials that were not examined in the preceding section of this chapter. With the completion of the 1961 Census, two comprehensive monographs were completed which dealt primarily with migration in Canada. Of these two monographs, the one by Stone(1969) was by far the most extensive, especially as relates to that aspect of migration with which our major concern lies. In addition to examining the operation of those differentials already discussed, Stone focused on the operation of Ethnic Origin, Language and Religion; while George(1969) examined the Native-Born Status differential. The findings as relate to these differentials can best be summarized in the following manner:

i Ethnicity

Stone(1969:81) reported that for the 1956-1961 period, those individuals reporting British Isles ethnic origins were most migratory; followed by those that were of Other and French origin. With respect to type of move(intra- and inter-provincial) the same pattern was once again noted, although the differences between these three groups were less pronounced with respect to intra-provincial moves than they were in relation to inter-provincial moves[58].

ii Language

Among the various language groups[59], Stone(1969:82-83) found that the English speaking and those speaking both English and French had the highest mobility rates. Of the remaining two language groups, the French had higher mobility rates than did those speaking neither French nor English.

Looking at language and type of move(intra- and inter-provincial), Stone noted that much the same sort of pattern appeared among intra-provincial movers; but the pattern changed somewhat when looking at inter-provincial moves. That is, once again those speaking English and those that were bilingual were most mobile, while those speaking neither of the official languages were more mobile that were those that spoke French only[60].

iii Religion

Among the religious groups studied, Stone(1969:83)[61] found that with respect to mobility in general and type of mobility(intra- and inter-provincial), Protestants and Others had the highest mobility rates while the Jews had the lowest rates of mobility. As well, he noted that in cross-classifying language and religion, the mobility rates "varied markedly...suggesting that if religion influences migration, this influence interacts with language(that is, the influence tends to change from one language group to another)."

Generally speaking, one can explain the operation of the three preceding differentials as working within the context of the geographic distribution of various subcultures(as represented by Ethnicty, Language and Religion) within Canada. Stone(1969:83) succinctly summarizes the operation of and way in which these differentials should be studied in the following statement:

> It is not all that unreasonable to suppose that a very significant proportion of Canadians would not reside in a local community where the cultural heritage and the folkways diverge sharply from those with which they are familiar and which are congenial to them, and that this tendency is not significantly counteracted by existing economic 'pulls' and 'pushes'. Give the highly varied ethnic, linguistic and religious composition of the Canadian population, it is conceivable that a fully adequate explanation of Canadian migration patterns should require that a prominent place be given to these socio-cultural patterns.

Before proceeding with the presentation of hypotheses and models to be tested, one last differential need be examined, i.e., the native-born status differential.

iv Native-Born Status

George(1969:173-175), examined the operation of this differential and it was noted that the anticipated finding that native-born individuals were more mobile(at least inter-provincial mobility) was not demonstrated by the data representing the 1956-1961 Canadian experience. What was noted was that although the pattern(by sex) was similar for these two groups, the non-natives appeared to have a peak mobility rate at an older age(30-34) than did the native-born population(25-29). This finding was attributed to the fact that mobility for the non-natives represented at least a second move, while it may have been a primary or secondary move for the native-born population.

At this point, it would be redundant to deal with the operation of those differentials that were examined in the preceding section of this chapter. For the most part, the amount of work done utilizing the 1971 Census[62] has been minimal. Most of the work appears to focus upon specific types of mobility or mobility within particular sub-groups (e.g. McVey(1978) a study of migration to small communities in Alberta only; Stone and Fletcher(1977) a census profile study of migration 1966-1971; and Stone(1979) a study of the occupational composition of migration). To the best of the authors knowledge there has been no work done which is similar to that being proposed and stated in terms of the hypotheses and models, which are to be presented in the following section.

3.3 Hypotheses and Models to be Tested

As was stated at the outset, the purpose of this study is twofold:

First, to determine what socio-economic characteristics are related, not only to mobility status, bu also various types of moves (intra-municipal; inter-municipal; intra-provincial; inter-provincial). That is, to explore the relationship between each of the traditionally used demographic and socio-economic characteristics(independent variables) and the two dependent variables(mobility status and type of move).

Second, to analyse the relationship between each of the dependent variables and the independent variables in order to determine how much of the variation in the dependent variable can be accounted for by the simultaneous action of all the independent variables.

In effect, we will be assessing the predictive power of these socio-economic characteristics(within the context of the push-pull framework), in terms of differentiating: not only movers from stayers, but also stayers from movers of a particular type(eg. stayers from intra-municipal movers); and movers of one type from movers of a different type(eg. intra-municipal movers from all other types of movers).

For the most part, the framework to be adopted is basically the push-pull framework of Lee(1966); although it does not explicitly fall within the bounds of the push-pull framework due to the limitations presented by the data which are to be used to accomplish the aformentioned purposes. There are two major assumptions made in conjunction with the adoption of this framework. Given that "migration" takes place when an individual decides that it is preferable to move rather than stay and where the difficulties of moving seem to be more than offset by the expected rewards(Kosinski and Prothero,1975:4), it is assumed: first, that most moves are rational in the sense that they are made in order to maintain one's present position(conservative) or to enhance one's present position(innovative); and second, that the pull factors associated with a given destination are somewhat similar for all migrants at that particular destination.

The models to be tested are outlined in Figure 1 and Figure 2. Figure 1 represents the multivariate model(Model A) which will be used to determine which factors best differentiate movers from non-movers. Having examined this model, Model B will then be tested to assess which factors differentiate movers of one type from movers of another type. Specifically, the predictors are the same, but the dependent variable will be type of move rather than mobility status.

Since our conceptual framework assumes that the pull factors associated with a given destination are somewhat similar for all individuals at that particular place; also included in these two models, are variables which will enable us to examine the workings of both models within the context of the opportunity structure present at both the regional and local level. It is anticipated that depending upon the type of movement being considered, these variables will have both positive and negative effects on propensity to move as well as distance moved.

For the most part, our concern in testing these models, will centre around testing the following hypotheses[63]. Specifically:

1. it is anticipated that there is an inverse relationship between both propensity to move, type of move and age
2. examining the relationship between such life cycle indicators as marital status, duration of marriage and family size; it is anticipated that propensity and type of move is inversely related to both marital status and family size but this relationship is dependent upon the type of move being made
3. it is anticipated that the English mother tongue group will be

FIGURE 1: MODEL A: EFFECTS OF OPPORTUNITY STRUCTURE, DEMOGRAPHIC AND SOCIO-ECONOMIC CHARACTERISTICS ON DIFFERENTIATING MOVERS FROM STAYERS.

Independent Variables*	Dependent Variables*
Region (1971)	
Community Size (1966)	
Mother Tongue	
Age	
Marital Status and Duration	Mobility a. Status
Family Size	
Education	
Occupation	
Income	

*See Appendix A for explanation of operationalization of variables.

a. Movers versus stayers.

FIGURE 2: MODEL B: EFFECTS OF OPPORTUNITY STRUCTURE, DEMOGRAPHIC AND SOCIO-ECONOMIC CHARACTERISTICS ON PROBABILITY OF MAKING A GIVEN TYPE OF MOVE.

Independent Variables*	Dependent Variables*
Region (1971)	
Community Size (1966)	
Mother Tongue	
Age	
Marital Status and Duration	Type of move.[a]
Family Size	
Education	
Occupation	
Income	

*See Appendix A for explanation of operationalization of variables.

a. 1) stayers versus certain types of movers.
   2) certain types of movers versus other movers.

more mobile than those of other mother tongues and that they are likely to move longer distances

4. it is anticipated that education is directly related to both propensity and distance moved; although it is suspected that the relationship may not be perfectly linear relationship, but rather is an inverted "U" type of relationship
5. it is anticipated that being unemployed promotes mobility, although it is also suspected that the relationship may not be significant or meaningful due to the way in which employment status is operationalized
6. much the same sort of relationship between our dependent variables, occupation and income(as was noted for education), is anticipated given the correlation between these three socio-economic characteristics.

The comprehensive review presented in both this and the preceding chapter set out the theoretical framework adopted in this study. Before proceeding with the presentation of the findings, a brief discussion of the methodology to be used to test these hypotheses and models is in order.

FOOTNOTES

1 The inducements, given classical theory, obviously must refer to features at both the origin and destination.

2 This whole question, of the effects of migration, is perhaps best illustrated within the context of migration and economic development, an area alluded to earlier, but also an area that is beyond the scope of this study.

3 Obviously, the importance of this statement is well illustrated within the context of government policy and it's desire to control(be it to hinder or promote) migration(Courchene,1970; Marr et al.,1977).

4 Bogue(1959) first argued these points.

5 For example, "a college education meant something quite different a generation ago" then it does today.

6 Marital status and family size will be discussed under the heading of life cycle.

7 The lack of universality of a sex differential and the differential influence of the above mentioned factors is perhaps best illustrated by the work of Simmons et al.(1977) who put together a fairly comprehensive review of internal migration in Asia, Africa and Latin America.

8 The differences becoming more pronounced as the distance increases.

9 Although the differences for these two groups of age categories are not very large.

10 And Table 1 to a lesser degree.

11 Assuming that married females are younger than their husbands. This question will be addressed in more detail very shortly.

12 The differences appear to be dependent upon the stream or type of move being made.

13 See George(1969:150) who presents data for the 1911-1961 period which shows that over time the patterns have converged.

14 George(1969:155) attributes this to "the migration of young families...in which the wife tends to be younger than the husband and the wife tends to move to the husband's place of residence and not vice versa."

15 Depending upon sex,. i.e. males 15-19, females 20-24.

16 Once again depending upon the sex, i.e. ages 25-29 for males and 20-24 for females.

17 Although not indicated by Table 3 George(1969) has shown that among the mobile population, there is what appears to be an increase in mobility after age 65, which Grant and Vanderkamp(1976:18) attribute to withdrawl from the labour force and "retirement relocation."

18 Many of these studies have discussed the concept of life cycle and mobility with respect to one type of move, namely residential mobility (Butler et al.,1964; Sabagh et al.,1969; Speare,1974; Speare et al., 1975).

19 In part the findings of Lansing and Mueller(1967) add further credence to this notion of career pattern and mobility.

20 The three stages are the baseline, incremental and approximation of the ideal stages. This framework of Michelson's is clearly an outgrowth of the work done by Sabagh et al.(1969) who argued that residential mobility is determined by family life cycle, social mobility and social aspirations, which depending upon the evironments ability to meet these aspirations and the existence of suitable alternative environments, will promote or restrict mobility.

21 Although when controlling for age one might expect these differences to be negligible.

22 Speare(1970) as well as Stone(1978) have also incorporated marriage duration into their life cycle measures.

23 In most empirical studies of residential mobility some form of density component is always included in the study of residential satisfaction and residential mobility(Newman,1974; Speare,1974; Speare et al., 1975).

24 Non-monetary or psychic costs.

25 Other individual attributes such as mother tongue and native-born status, though not discussed here, will be refered to briefly in the section which deals primarily with Canadian migration studies.

26 Simmons et al(1977:24) argued that this desire to attain education is a strong motive for rural-urban migration.

27 Stone(1979) adds support to this notion in his comprehensive study of the factors affecting the frequency of mobility in Canada 1966-1971.

28 A finding which is consistent with the work of Ladinsky(1967:1967a).

29 Simmons et al(1977:55) proposed that education may also "reduce the importance of tradtion and family ties as the student becomes more aware of other values in other places.

30 As an aside, one should remember that this uncertainty is reduced considerably as the level of skills acquired becomes more specialized, simply as a result of those employers requiring "highly skilled personnel" advertising on both national and international bases (Canada Manpower and Immigration,1975:45).

31 Quite clearly this finding lends credence to Morrison's(1973:27) concept of the "threshold of variability in the decision to move" which results from "occupationally induced constraints on mobility.

32 It may also partly be a function of the one year time frame(1968-1969) used in their study.

33 This point illustrates one of the problems with utilizing census data in the search for differentials. That is, the question is raised, "Is the present occupational status the cause of mobility or the result of mobility?"

34 This issue is further complicated by the fact that census data traditionally has been unable to deal with military personnel moves and the high degree of mobility among white collar workers which is directly attributable to "autonomous moves" or job transfers.

35 This premise is derived from the economist's interpretation that migration serves as a means of efficiently re-distributing labour.

36 Simmons et al(1977) review of internal migration, on the other hand, noted that skill levels and migration were related to the level of economic activity in the country.

37 A comprehensive look at the occupational composition of Canadian migration(1966-1971).

38 Similar findings using a somewhat different approach were found by Marr et al.(1977).

39 In fact the sources used by these various occupational groups are somewhat similar to the sources used by various occupation groups (requiring a certain level of education)(Lansing and Mueller, 1967:259), i.e., friends and relatives as sources of information are less important.

40 As well, they were more likely to make effective use of the available information.

41 Due to the type of datasets that are usually used to study migration, i.e., these sets usually deal with at least a five or ten year time frame.

42 A finding that does not make sense since the costs of being unemployed increases with duration.

43 This re-adjustment of aspirations may then result in acquiring employment in the home area which is more keeping with this(usually downward) re-adjusted aspiration level.

44 More than 40 weeks.

45 That is how much further an individual will move given a unit change in income as measured by the regional differences in wage rate.

46 This conclusion is based primarily on the study done by Simmons et al. (1977) who stressed very strongly the cultural differences that existed in the areas of Asia, Latin America and Africa, which in large part accounted for the variations in the operation of the examined migration differentials.

47 For the most part, the analysis has been done using aggregate level data. The method has been to relate migration flows, expressed in terms of some rate, to structural parameters representing the origin and destination; and then on the basis of these findings motives are imputed to the individual level.

48 It should be pointed out that the work of Courchene and Grant and Vanderkamp, as well as being more comprehensive than most economic studies made use of non-traditional data sources(tax returns and unemployment insurance records).

49 A question relating to the respondent's place of residence on 1 June 1956.

50 Foot(1982:33) has demonstrated that this pattern has reversed during the 1971-1979 period. In fact, all the Maritime provinces, with the exception of Newfoundland, have been net gainers.

51 Foot(1982:33) has shown that this net loss position is continuing in Quebec and that the net loss figures for 1971-1979 are comparable to those for 1961-1971.

52 Foot(1982:33) shows that this decline is continuing in 1971-1979, and is a result of both in-and out-migration.

53 In fact, Foot(1982:33) has shown that for the 1971-1979 period Saskatchewan showed a positive net migration position.

54 One has to remember that net=in minus out. Consequently, given the belief of an East-West migration stream, as opposed to the not only East-West but also North-South pattern in the U.S.; this high net migration rate is probably a function of B.C.'s position as the furthermost western province. This in part explains the high efficiency ratio noted for the province, in comparison to the other provinces of the country.

55 Stone's(1969) monograph based on the 1961 census dealt specifically and in detail with this aspect of the Canadian experience. It should also be emphasized that this particular aspect of the Canadian experience is beyond the scope of this study.

56 And a loss through migration.

57 We will not deal with those differentials that were examined in the preceding section, for where possible, an attempt was made to make use of the Canadian literature.

58 Krishnan(1980) also examined the operation of this differential for Canada(1951-1971) noting that the ethnic composition in the various provinces has changed during this period. Perhaps the most important point being made by Krishnan(1980:9) is that the power structure in the various provinces should be affected, primarily in those regions where the non-British groups are losing their position of dominance (Ontario, B.C. and Alberta).

59 English only, French only, both English and French and neither English nor French.

60 Krishnan(1981) examined the operation of the mother tongue differential in Canada(1951-1976) and emphasized that the propensity of certain groups to move is having an effect on the composition of the receiving and sending provinces. The implication, once again being that the "socio-economic and political life" in these areas will eventually have to change in response to this shift in the mother tongue composition.

61 Roman and Greek Catholics, Greek Orthodox, All Protestants, Jewish and Others.

62 The 1971 Census, for the first time, had a question relating to the number of moves(changes of municipality) a respondent had made between June 1, 1966 and June 1, 1971. The information generated in response to this question served as the basis for a study by Stone (1978) on the frequency of inter-municipal migration in Canada.

63 In addition to testing those hypotheses that relate to the opportunity structure variables noted above.

CHAPTER FOUR

METHODOLOGY

Before proceeding with a discussion of the mode of analysis, it would perhaps be useful to first deal with some of the innovative aspects of this study. For the most part, these innovations are largely derived from the sample data source which has been utilized and the mode of analysis being proposed to test the hypotheses and models specified in the preceding chapter. That is, migration is an "individual act" (Mangalam and Schwarzweller,1970:8) and as Lee(1966:56-57) has pointed out, it is these personal factors which account for the differences in how individuals respond to the factors associated with the origin and destination. Given the availability of individual level census data[1], the type of analysis being proposed would be better suited for identifying those characteristics that differentiate movers from non-movers, and movers by type of move. In short, the objective is to predict individual behaviour, so it seems only appropriate that with the availability of individual level data, the analysis will prove to be more meaningful than the type of analysis that has been in the past when individual level data were unavailable.

Traditionally the dependent variable has been measured in terms of in-, and out-migration rates(Bogue et al.,1957; Shryock,1964;Stone, 1969; Tarver,1961;1964; Thomas,1938). For our purposes the dependent variable will be in the first instance, a mover non-mover dichotomy; in the second instance our dependent variable will be a mover versus other mover dichotomy[2]. Operationalizing the dependent variable in such a way, an approach not traditionally taken, allows us to clarify an area of migration that has been sorely overlooked(Stone,1971a:11).

The multivariate techniques to be used in the analysis though recently coming more into vogue, are still considerably different from techniques traditionally used in this type of analysis.

Having pointed out some of the innovative aspects, the remainder of this chapter will centre around a discussion of the sample and methods of analysis; as well as, elaborating on the methodological problems associated with the analysis to be carried out.

4.1 The Sample

The purpose of this study is to examine internal migration differentials in Canada during the 1966-1971 period. With this in mind, investigations will be carried out using data from the individual file of the Public Use Sample Tape provided by Statistics Canada from information gathered during the 1971 census.

"The Public Use Sample Tape is a representative sample of individual records from the 1971 Census Master File. The primary sample size is one-in-one hundred. Data from the long-form census questionnaire, or one-third sample, were used to create the Public Use Sample Tapes"(Statistics Canada,1975).

For study purposes the sub-sample was selected in the following way:

1. since we are concerned only with internal migration and not international migration, those individuals not residing in Canada in 1966 were excluded
2. since the household head traditionally makes the decision to migrate and the rest of the household follows(Rossi,1955; Beshers and Nishura,1959), a further refinement in sample selection was done, i.e. only those individuals that were either heads of a

census family[3](not heads of an economic family), or single individuals were selected. In the first instance widowed divorced or separated individuals with children(never married) were considered to be heads of a census family; whereas, widowed, divorced or separated individuals without children were considered to be single individuals.

3. since occupation and labour force information were only reported for those individuals aged fifteen and up; and since "mobility information" for individuals under fifteen years of age was "imputed on the basis of information reported for the parents, if present"(Statistics Canada,1975:4.2.33), only those individuals aged fifteen and over were included in the sample

4. just as Stone(1970:103) included in his sample only those individuals "not attending school in the 1970-1971 school year and who had worked in 1970; we also felt it would be important to exclude those individuals attending school(full or part-time) during the 1970-1971 academic year but decided to include those individuals that were unemployed or did not work in 1970. It was felt that labour force participation status might play an important part in any mobility decision

5. it was noted in the preceding chapters that a large number of moves could be described as being military and "autonomous" moves (job transfers)(Blanco,1963; DaVanzo,1981; Lansing and Mueller, 1967). Consequently, we excluded persons employed by the military for it was felt that mobility decisions made by these individuals would not be made within the content of the framework which we have adopted[4]

6. the final step in generating the sub-sample was accomplished by

taking and drawing a one-in-five hundred sample from those cases that met the above stated criteria. This was accomplished by using a linear systematic procedure, i.e., selecting a random starting point and then selecting every fifth case.

As a result of using the above criteria, a sub-sample of 11,918 individuals was eventually obtained. This sub-sample was then used as the dataset for the analysis carried out in the following two chapters. Given that the use of multivariate techniques does not require one to have as large a number of cases as do traditional bivariate types of analysis, a much smaller sample size was used in the testing of Models A and B. That is, using the random sampling feature found in S.P.S.S., various samples were drawn. A ten percent sample of the 11,918 cases was drawn and used in the testing of Model A and the first three variations of Model B. A fifty percent random sample was used to test the last three variations of Model B; while a 100% sample of all native-born inter-provincial movers was used in that part of the analysis that addresses the return migration question.

4.2 Data Limitations

At the beginning of this chapter brief mention was made of a number of advantages presented by both the dataset and mode of analysis to be utilized in this study. Before proceeding any further, it would be worth-while to briefly point out some of the limitations presented by the use of this particular dataset. Given that this study makes use of census data [5], which represents a ten year period[6], a number of problems arise when attempting to study differentials using this type of information. Specifically, census information never attempts to explore why migrants left a particular origin or selected a particular destination. Therefore in the strictest sense(according to Lee's notion of selectivity), selectivity cannot be determined[7].

Census information also fails to glean information about the characteristics of the individual prior to the move. As a result, Zachariah(1977:128) argues that only migration differentials at the destination may be examined. It is therefore impossible to determine if present individual characteristics, for example, occupation, education and income, changed as a result of the movement. Because of the cause and effect nature of migration, and this inability to deal with characteristics before the move, comparisons between mobile and non-mobile populations(at destination) can only answer two questions, i.e., "How well did the migrants fare in comparison with the receiving population?" or "Did in-migrants have different characteristics than those of the receiving population?"(Bogue et al.,1953:12).

Census information becuase of its periodicity(conducted every 5 or 10 years) is unable to deal specifically with multiple moves which may have occured during the time period in question[8].

As a result of the long interval between censuses, there is also an attrition factor operating, in that some migrants may have died. A disproportionate number of migrants may have died between censuses, thereby diluting the effect or at least the significance of certain differentials as a result of losing individuals that could be compared to the base population(Simmons,1968:167).

As a consequence of the long census interval, and the failure to inquire about multiple movers, it is conceivable that many migrants (return migrants) are missed, thereby mis-representing the magnitude of migratory activity, as well as making it difficult to ascertain the characteristics of these individuals.

It has been stated that migration does have consequences for the distributions of populations at both the origin and destination. As a result of the long intercensal time period, the characteristics at these two points could vary considerably thereby changing the selective nature of migration, depending upon whether the migration took place early in the interval or later in the inerval(Simmons,1968:174-175).

Finally, Bogue et al.(1953;12,125) points out that though migration differentials at origin and destination appear to be similar, they are "far from identical"; thereby indicating that, "migration selectivity should be...explained in terms of the combination of conditions and the population residing at the place of origin and the place of destination". Given the nature of census data, this is a very difficult, if not impossible task to accomplish.

Although the problems noted above appear to be quite numerous, the advantages presented by the mode of analysis and the dataset, appear to add support for completing the proposed study. The remainder of the chapter will focus upon the mode of anlaysis; both the advantages and limitations, in order that the reader can better appreciate the significance of the findings to be reported in subsequent chapters.

4.3 Methods of Data Analysis

The statistical procedures to be utilized include basic descriptive and cross-tabulation procedures[9] as made available in the Statistical Package for the Social Sciences(S.P.S.S.). Through the use of cross-tabulation procedures one is able to study

> the behaviour of one variable while eliminating the influence of related variables... If the particular variable under consideration retains its characteristics of association, even if not to the same degree, under all these conditions, then that association may be said to reflect a relationship that cannot be explained in terms of other variables(Bogue et al.,1953:4).

A number of problems arise when one utilizes cross-tabulation procedures. First, a large sample size(when employing simultaneous controls) is required. It is quite conceivable, that in introducing a number of simultaneous controls, problems in sample size could be created. That is, the assumption that all cells have a given number of cases could be violated if the number of cells(as would be the case with a large number of simultaneous controls) is great.

Second, interpretation of the results would be extremely difficult and unmanageable given the way in which the sub-routine crosstabs (S.P.S.S.) operates and generates output.

Third, and a more practical consideration, is that the amount of computer time and associated costs, would have been prohibitive had we ensured that a sufficient number of cases would be available to fill all the possible cells that would be generated by the addition of more control variables[10].

In part, our use of multivariate techniques is in response to the problems noted above. As well, it was felt that these techniques were most appropriate for studying this phenomenon, for the following reasons:

1. migration being a "social phenomenon" is best understood by taking into account the inter-play among a number of factors considered simultaneously(Mangalam and Schwarzweller,1968:4). Given this

complex type of inter-play, it was felt that multivariate techniques, such as "Dummy Dependent-Variable Regression", offer the most fruitful and appropriate way of dealing with and explaining such a complex process(Newman 1974)

2. the application and use of multivariate techniques also allows for determining, not only the effect of each factor acting simultaneously, but also the effect of each factor acting independent of the others(Bogue et al.,1953:64).

Five methods of anlysis were considered for adoption in this study, i.e., Ordinary Multiple Regression, Multiple Classification Analysis, Discriminant Analysis, Log-Linear Analysis and Dummy Dependent-Variable Regression. Rejection of the first four methods was based not so much on the statistical merits of the method chosen, but rather upon the ability of the chosen method to provide meangingful and interpretable results. As well, as we shall demonstrate, the method selected violates certain statistical assumptions and is perhaps less parsimonious than some of the other methods considered, but rejected; but from a practical point of view the adopted method seems to more than adequately facilitate meeting the objectives as stated.

The multivariate technique chosen has been commonly referred to as "Dummy Dependent-Variable Regression"(Gillespie,1977; Knocke,1975; Miller and Erickson,1974). Generally speaking, this type of regression procedure is similar to ordinary regression except that the dependent, as well as independent variables, are categorical or dummy variables.

In ordinary multiple regression with dummies the regression equation is[11]

$$Y' = A + b1D1 + b2D2 + b3D3 + e$$

In "dummy dependent-variable regression" the regression equation would be[12]

$$P1 = A + b1D1 + b2D2 + b3D3 + b4E1 + b5E2 + b5X + e$$

where:

> P1 = "expected proportion of cases in the category coded 1 for a given combination of independent variables(Knocke, 1975:417)
>
> A = the y intercept or constant which represents the proportion of cases whose members have 0's assigned throughout. That is, the proportion of cases(assigned 0's throughout) in the reference categories of the two categorical variables represented by D1, D2, D3, E1, E2 (Kerlinger,1973:108)
>
> b1 through b5 = regression coefficients(unstandardized) for each of the categories of the categorical variables (D1, D2, D3, E1, E2) and the interval scale variable (X)[13]. In effect the b's represent "the difference between the proportion of cases of a given group assigned 1's and the group assisgned 0's throughout"(Kerlinger,1973:108). As well, these are adjusted proportions, rather than raw proportions, after adjusting for the effect of all predictors in the regression equation(Andrews et al., 1971: 27).

Basically, the assumptions for using this technique are similar to the assumptions used in ordinary regression analysis. Specifically: (Knocke,1975:422-423)

(i) the dependent variable has an unrestricted range

(ii) there is "homoscedasticity in the error variance of the dependent measure"

(iii) there is "normality of the distribution of observations around the regression line... for appropriate use of the F-test."

As well, there are the usual assumptions of "linearity between the independent variables(and other independents) and dependent variable; and the additivity assumption which assumes that "the differences in effects between two categories of a variable in the analysis are constant[14] over all combinations of that variable with all other variables(Miller and Erickson,1974:425)[15].

Quite clearly, the first three assumptions, are not met in "dummy dependent-variable regression." Gillespie(1977:105-107)[16] makes a number of points, which given the violation of certain assumptions, still would allow one to use this technique. Specifically, it is argued:

1. that the unrestricted range assumption "is violated in the case of most dependent variables, even those measured at the interval level." Consequently, using a restricted range (0,1) on the dependent variable violates this assumption, but this is "inconsequential when the dependent variable for the sample has a 75%-25% split"
2. that the "homoscedasticity assumption(equal conditional variances for all joint values of the independent variables"[17]) is violated "by definition" in this case. The consequences of violating this assumption are that "the slopes will be unbiased but inefficient"[18].

Given the statistical assumptions necessary to use this method, it would seem that adoption of the "dummy dependent-variable regression" technique is somewhat questionable in this case. Though assumptions one through three, and to a certain degree the additivity and linearity assumptions may also be violated; given our objectives it was felt this method of analysis would be appropriate for the following reasons. In our analysis, we have attempted to minimize the violation of the first assumption by doing the analysis in such a way as to ensure a split on the dependent variable that will fall within the accepted range.

Since our primary concern is with determining which factors differentiate movers from stayers and movers of one type from movers of another type, and not prediction of the conditional probabilities[19]; although the coefficients are ineffecient, they are unbiased and still allow us to make statements about those factors which are important in differentiating movers from stayers and movers from other movers.

Efficiency of the predictors can be enhanced through the use of this technique because "dummy dependent-variable regression" is a method which can effectively deal with the non-linear nature of relationships. Since "the dummy variables are treated as nominal scales, non-linearity presents no difficulty when the troublesome variables are converted to dummy variables"(Miller and Erickson,1974:425)[20].

Before proceeding with the discussion of findings, a few words should be devoted to discussing the way in which S.P.S.S. handles "dummy dependent-variable regression" and the output that is generated. In addition to using both categorical and interval scale predictors, this method involves using a dichotomized dependent variable. In order to utilize this method it is therefore necessary to first create the appropriate dummy variables

The data manipulation necessary to create the dummy variables is that k-1 dummy variables must be created. That is, for the dichotomous dependent variable one dummy variable is created and represented by 1 for those moving whereas all others(stayers) are then represented by 0's[21].

The creation of the independent dummy variables is done in the same manner, thereby yielding k-1 dummy variables which represents(in number) one dummy variable less than the number of categories in the original categorical variable[22]. For example, the categorical variable marital status, with four categories: single, married, divorced and other would necessitate the creation of three dummy variables; where D1=single(1), D2=married(1) and D3=divorced(1). Exclusion of the one dummy variable representing 'other' is necessary for it is determined by the first three dummy variables created(D1,D2,D3). "In fact the excluded category becomes a sort of reference point by which the effects of the other dummies are judged and interpreted(S.P.S.S.,1975:374)[23].

Once this data manipulation has been completed, one can proceed with the analysis in the standard way as handled by the sub-routine in S.P.S.S. Ideally, one would have preferred using the step-wise multiple regression procedure, but due to the violation of the statistical assumptions, such a procedure would have been inappropriate gien the way in which the variables are entered into the regression equation[24].

Since the step-wise procedure is inappropriate, it necessitated using the hierarchical method where the variables are entered into the regression equation in a pre-determined order. The rationale used for selecting the order was that precedence was given to one variable over another on the bases of intuition and the belief that one variable preceded the other in time(Kerlinger,1973:193)[25].

The output generated by S.P.S.S. using the hierarchical method is the standard regression output. In making use of this output, we will report:

(i) the constant term(A) and the unstandardized regression coeeficients (b's) whose interpretation was discussed earlier

(ii) the zero order correlations

(iii) the standard error of the b's and the overall F-ratio's[26]

(iv) the multiple R Squared which represents the total variance explained in the dependent variable by all variables in the regression equation.

Quite clearly, there are serious limitations being presented by not only the method of analysis adopted, but also by the availability and meaning of variables in the dataset. In presenting this review of the methods of analysis, our objective has been to sensitize the reader to the limitations found in the data analysis which is forth-coming. Even though these problems appear to be substantial, it is the author's belief, that the way in which the analysis is carried out, in spite of violation of some assumptions, achieves the objectives of the study as stated. To further emphasize this belief, it should once again be stated that our primary objective is to determine which factors differentiate movers from stayers and movers by type of move; an objective, which is possible if one is cautious in interpreting the findings to be presented in the following chapters.

FOOTNOTES

1 Individual level census data were first available in the U.S. in the 1960 Census(Ladinsky,1967). Individual level data dealing with the 1971 Canadian Census first appeared in 1975 in the form of Public Use Sample Tapes.

2 See Appendix A for the way in which we have operationalized all the variables to be used in the data analysis.

3 Census Family is defined as husband and wife and unmarried children regardless of age or a lone parent regardless of marital status with one or more children who have never married regardless of age and living in the same dwelling.

4 We are assuming that such moves are not voluntary and as a result, mobility behaviour on the part of these individuals does not occur in response to differential responses to both the origin environment and a possible destination environment. It should also be pointed out, that ideally, exclusion of those individuals making "autonomous moves" would have been desireable, but due to the data source limitations, such an exclusion was not possible.

5 For that matter, most migration research utilizes this type of data.

6 Yet mobility is often looked at for only the last five years.

7 With respect to this point selectivity has been studied by looking at the characteristics of both origin and destination and imputing motives to the individual level from these aggregate characteristics.

8 More recently, the census(Canada,1971;1976) has gathered information about the number of moves made between the initial and following census. This particular aspect was dealt with in substantial detail by Stone(1978) who examined freouency of moves in Canada during the 1966-1971 period.

9 Only in the study of return migration.

10 As cross-tabulation procedures will only be used in that part of the study that is concerned with looking at return migration; and since this is basically only exploratory in nature, the problems and the issues raised here are really not significant as no controls will be used in that part of the anlysis.

11 For a simple regression with a single interval scale dependent variable and a categorical independent variable of four categories, K-1 or 3 dummy variables(D1, D3, D3).

12 In this case, for illustrative purposes we have added a second categorical variable with three categories, K-1 or 2 dummy variables (E1, E2) and an interval scale predictor(X) with a dichotomized dependent variable(dummy).

13 Assuming that X has a common slope with the categorical variables (S.P.S.S.,1975; Miller and Erickson,1974; Knocke,1975).

14 That is, there is no interaction.

15 In this study, interaction effects will be ignored and additivity will be assumed because the number of interaction terms "rises rapidly as one successively adds more and more independent variables"(Tarver, 1961;209). Since each category of a categorical variable represents one independent varaible, the number of interaction terms would have quite large.

16 This article dealt with a comparison of this technique and log-linear models.

17 "When the dependent variable is a dichotomy, the conditional variance is the proportion of cases that fall in the response category times the proportion that fall into the other category for a given value of the independent variable"(Gillespie,1977;106).

18 Kerlinger(1973:47) points out that "there is no need to assume anything to calculate r's, b's and so on."

19 This is not possible or legitimate given the violation of assumptions two and three(Gillespie,1977;101).

20 Categorization of interval scale predictors will in all likelihood be done for it is felt: (i) that using interval scale predictors would be less efficient than categorizing these interval scale variables since the slopes of the interval scale predictors are assumed to be common throughout categories of the categorical variables, and such an assumption is likely to be false(Miller and Erikson,1974; Knocke, 1975); and (ii) there is reason to believe that the relationships are not linear thereby reducing efficiency, which as stated above, is not a problem when using dummy variables.

21 For example, in the regression of movers versus stayers.

22 Interval scale predictors that are converted to dummies will involve first categorizing the variable and then creating K-1 dummy variables. The way in which the categorization is done is more fully explained in Appendix A.

23 Kerlinger(1973:107) demonstrates that mathematically it makes no difference which category is designated as the reference category. Miller and Erickson(1974:415) state that the decision can be simply based upon the criterion of "ease of interpretation."

24 Order of entry is based upon which variable has the largest squared partial correlation with the dependent variable and the significance of the corresponding F-ratio(S.P.S.S.,1975:345-346).

25 This implies some sort of causal structure among the independent variables, but it is beyond the scope of this study to deal with the casual nature of the relationships between the independent variables. As well, it should be pointed out that the "total amount of variance explained in the dependent variable(R squared), is the same regardless of the order... It is only the proportions of variance attributed to each factor that are affected by the variable order"(Kerlinger, 1973:94).

26 For reasons already stated, these statistics should be cautiously interpreted, if interpreted at all.

CHAPTER FIVE

MULTIVARIATE MODELS OF MIGRATORY BEHAVIOUR

Following the extensive literature review in Chapter Three, a number of hypotheses and models were proposed for testing, the objective being to determine if the kinds of relationships noted in the past, are still meaningful within the context of the Canadian experience. Employing the data source and methodology which were discussed in the previous chapter, those earlier stated hypotheses and models are to be examined. Consequently, the major focus of this chapter is centered around the reporting of/and discussion of the findings, as pertains to the testing of these hypotheses within the context of Models A and B.

Before proceeding with the discussion, a brief description of the nature and magnitude of mobility during the period in question(1966-1971) is in order. During this period just under one-half(48.2%) of the individuals in the sample made at least one move(Table 10). Of these mobile individuals almost sixty percent(57.8%) made an intra-municipal move, a move within the same city, town, village, etc. Assuming that distance becomes progressively greater as one moves from intra-municipal to inter-provincial, there appears to be a inverse relationship between propensity to move and distance[1]. The linear nature of this relationship, which is not perfect, as indicated by the proportion of intra-provincial movers [2], is not totally unanticipated for Stone and Fletcher (1977:10-11) have pointed out that

TABLE 10: PERCENTAGE DISTRIBUTION OF MOBILITY STATUS, CANADA 1966 - 1971

Mobility Status	Percent (N)
Stayers	51.8 (6,175)
All Movers	48.2 (5,743)
Intra-Municipal	27.9 (3,324)
Inter-Municipal	5.4 (640)
Intra-Provincial	10.5 (1,256)
Inter-Provincial	4.4 (523)
TOTAL	100 (11,918)

> ...short-distance moves(are) prompted by changes in the individual and family life cycle... In additon, long-distance moves tend to be relatively costly and entail sharp breaks with social ties in the community of origin. Finally as distance increases, the information from the areas of destination tends to decrease.

5.1 Multivariate Analysis of Models A and B

The Models outlined in Figures 1 and 2[3] were used to determine which variables were best able to differentiate movers from stayers and movers by type of move. Before proceeding with this discussion, the reader is reminded that our objective is to examine the significance of each of the aforementioned differentials[4] and not to maximize the fit of of the model. As well, it should be noted that although there obviously are causal linkages between many of these variables, as evidenced by the zero-order correlations and unreported standardized regression coefficients, the analysis of the causal structure is not the primary objective of the study; although a degree of causality was assumed as a result of adopting the hiearchical procedure. Causal order was based on intuition, that is, variables were entered into the equation[5] on the bases of the belief that they preceded other variables in time. Specifically, the opportunity structure variables(region and origin community size) were entered first(primarily as controls); the demographic variables were entered second(mother tongue, age, marital status and duration, family size); and finally the socio-economic variables were entered last(education, employment status occupation, income).

5.1.1 Model A-Movers Versus Stayers

The testing of Model A[6] indicates that approximately one quarter (25.3%) of the variance in the probability of being a mover, as opposed to being a stayer, is accounted for by the simultaneous action of all the variables. Generally, such a result would be considered to be quite disappointing, but given that these results are based on micro-data, the results are quite acceptable.

Examination of Table 11 reveals that most of the variance in the probability of being a mover is accounted for by origin community size and age. The more detailed examination of the effect of all the variables is presented in Table 12. Before proceeding with the detailed examination of the operation of each of the variables it should be noted that for this particular sample there was an almost 50-50 split on the dependent variable, indicating that without knowing anything about an individual one could guess correctly almost fifty-percent of the time(by assuming everybody is a mover), whether an individual was a mover or stayer. On the other hand, it is noteworthy that the probability of being a mover is substantially below that level for individuals found in the reference category. Specifically, the probabili y is approximately .19, assuming of course an additive model[7]. The detailed examination(Table 12) reveals:

Opportunity Structure Differentials

The regional variable appears to be of little value in differentiating movers from stayers. In fact, it is observed that the probability of being a mover in relation to the reference category Quebec, is marginally increased in all regions with the exception of the Maritimes. Although it appears that the probability is increased in Ontario, B.C. and the Prairies, it would be incorrct to say that such is

TABLE 11: TOTAL AND PARTIAL R^2'S OF OPPORTUNITY STRUCTURE, DEMOGRAPHIC AND SOCIO-ECONOMIC VARIABLES ON DIFFERENTIATING MOVERS FROM STAYERS[1]. (N=1,150)

Variables[2].	Total R^2	Partial R^2
Opportunity Structure		
Region	.00194	.00194
Origin Community Size	.02308	.02118
Demographic		
Mother Tongue	.02396	.00090
Age	.23078	.21190
Marital Status	.24259	.01535
Family Size	.24800	.00714
Socio-Economic		
Education	.25033	.00310
Occupation	.25259	.00288
Income	.25348	.00132

1. Dependent Variable = Movers = 1
   Stayers = 0

2. See Appendix A.

TABLE 12: REGRESSION OF OPPORTUNITY STRUCTURE, DEMOGRAPHIC AND SOCIO-ECONOMIC VARIABLES ON DIFFERENTIATING MOVERS FROM STAYERS[1].

Opportunity Structure	Unstandardized b's	Standard Error b	Zero-Order Correlation
Region			
Maritimes	-.04540	.06059	-.04379
Quebec	-	-	-
Ontario	.00798	.04603	.00806
Prairies	.03129	.05576	.00644
B.C.	.01667	.05829	.00946
Origin Community Size			
Urban 30000+	.23914*	.07080	.07854
<30000	.23552*	.07379	.02150
Rural Non-Farm	.18654*	.07439	-.05043
Farm	-	-	-
Demographic			
Mother Tongue			
English	-.03710	.04674	.01105
Other	.02146	.05352	-.02187
French	-	-	-

TABLE 12: CONTINUED

	Unstandardized b's	Standard Error b	Zero-Order Correlation
Age			
15-29	.50702*	.05833	.38736
30-34	.39090*	.06178	.16058
35-39	.21584*	.06415	.01944
40-64	.02161	.04513	-.29828
65+	-	-	-
Marital Status			
Single	-	-	-
Married ≤5	.04526	.05987	.25940
≥5	-.13286*	.04787	-.22464
Other	-.02350	.05201	-.02403
Number of Children			
0	-	-	-
1	-.05991	.04020	-.00797
2	.05897	.04310	.09856
3	-.04298	.04922	-.07116
4+	-.01739	.05009	-.06304
Socio-Economic			
Education			
< Primary	-	-	-
GR 9-11	.00766	.03417	.06436
GR 12-13	-.01058	.04521	.07005
Some University	.05666	.05269	.06504

TABLE 12: CONTINUED:

	Unstandardized b's	Standard Error b	Zero-Order Correlation
Occupation			
Unemployed	-	-	-
Managerial	-.03058	.08138	-.01168
Professional	.04202	.06778	.10337
Service	-.01453	.05184	.04589
Primary	.01137	.07253	-.05439
Manufacturing	-.02787	.05413	.02012
Other	-.06711	.05970	-.02704
Income			
<2480	-	-	-
2481-5620	.03612	.04155	.02197
5621-8640	.05730	.04739	.04695
8641+	.04033	.05025	.00005

Constant = .19211 (proportion movers = .50; proportion stayers = .50)

R = .25348

N = 1,150

F = 11.85

* Significant at least .05 level.

1. Dependent Variable = Movers = 1
   Stayers = 0

- Reference Category

the case given that the unstandaridized b's are smaller than the standard errors[8]; consequently, the direction indicated by the sign may not be correct but is just a function of the particular sample that has been drawn.

As was earlier indicated, origin community size was felt to be a much better indicator of opportunity structure than was region. It appears that the probability of being a mover is significantly increased as the size of community increases. In fact, the probability appears to be raised by almost .25 for those originating in both urban areas and by only .18 for those originating in rural non-farms areas[9] . This finding is not unexpected given that over twenty-five percent of the individuals in the sample made intra-municipal moves, moves within the same municipality. Consequently, one would expect the observed result simply because the opportunities for movement in the larger centers are far greater than they are in the smaller areal units.

Although community size appears to be quite significant in terms of increasing the probability of being a mover rather than a stayer, it is anticipated that it's true effect will be better illustrated when intra-municipal movers are ommitted. This question will be addressed shortly, when Model B is tested and the focus is centered upon differentiating movers by type of move.

Demographic Differentials

Of the demographic variables, only the age and marital status (duration) variables had statistically significant effects on the probability of moving. As anticipated, age is by far the best predictor of mobility status, in that all age categories combined explain almost 84%[10] of the explained variation in the probability of being a mover.

It is also worth noting that in relation to the reference category, the probability of being a mover decreases with age. Specifically, the probability of being a mover is increased by almost .51 for those 15-29 while it is only increased by .22 for those aged 35-39. More importantly, if one examines the zero-order correlation, one finds that while age appears to have a primarily direct effect on the probability of moving for those that are young; as age increases the direct effect decreases, indicating that the effect of age is mediated by other variables which have been included in the regression equation[11].

Of the remaining demographic variables, only the marital status (duration) variable appeared to account for any substantial increase in the R square. In fact it's relative contribution appeared to be similar to that of the origin community size variable. Of the three states of marital status, only those married more than five years appeared to have a mobility pattern that was significantly different from those in the reference category(single). That is, it was noted that the probability of being a mover was decreased by .13 among those married more than five years.

Although not statistically significant, generally speaking those that were married five years or less, as well as those in the "Other" marital status categories, have probabilities of being movers that are quite similar to those individuals that are single. It should be noted that the correlation coefficient between married less than five years and being mobile is quite large in relation to the b-value, indicating perhaps that with the adjustment for other factors, this marital status category has little effect on the probability of moving.

Discussion of the mother tongue and family size(number of children) variables effect on the probability of being a mover, will not be elaborated upon as their importance, not only from a signifcance point of view, but also from a substantive point of view, appears to be quite minimal. It is sufficient to note that the results as indicated by the zero-order correlations are consistent with the findings reported by others.

Further discussion of Tables 11 and 12 would add very little with respect to understanding in a meaningful way, those characteristics which differentiate movers from stayers. Generally speaking, it appears that the probability of being a mover is quite substantial if one is young, living in a large urban area and has not been married for more than five years. The region one lives in, as well as one's socio-economic characteristics appear to have no bearing on whether an individual will be a mover or a stayer.

5.1.2 Model B - Intra-Municipal Movers Versus Stayers

The just concluded discussion(Model A) indicated that the opportunity structure and demographic variables were most useful in differentiating movers from stayers. The subsequent formulation and testing of Model B[12] is assumed to yield results that are quite similar to those just observed, simply because over fifty percent of the movers in the preceding sample were intra-municipal movers. The results presented in Tables 13 and 14 do in fact have a close resemblance to the results illustrated in the preceding two tables.

The relative contribution of each of the groups of variables, with respect to explaining the variation in the probability of being an intra-municipal mover, once again indicates that the demographic variables are most important; the opportunity structure variables are second in importance, while the socio-economic variables provide little

TABLE 13: TOTAL AND PARTIAL R^2'S OF OPPORTUNITY STRUCTURE, DEMOGRAPHIC AND SOCIO-ECONOMIC VARIABLES ON DIFFERENTIATING INTRA-MUNICIPAL MOVERS FROM STAYERS[1]. (N=900)

Variables[2]	Total R^2	Partial R^2
OPPORTUNITY STRUCTURE		
Region	.00374	.00374
Origin Community Size	.04104	.03744
DEMOGRAPHIC		
Mother Tongue	.04159	.00057
Age	.19916	.16441
Marital Status	.21697	.02224
Number of Children	.22339	.00820
SOCIO-ECONOMIC		
Education	.22384	.00058
Occupation	.22821	.00564
Income	.22928	.00139

1. Dependent Variable = Intra-Municipal = 1
   Stayers = 0

2. See Appendix A

TABLE 14: REGRESSION OF OPPORTUNITY STRUCTURE, DEMOGRAPHIC AND SOCIO-ECONOMIC VARIABLES ON DIFFERENTIATING INTRA-MUNICIPAL MOVERS FROM STAYERS[1]

Opportunity Structure	Unstandardized b's	Standard Error b	Zero-Order Correlation
Region			
Maritimes	-.07859	.06654	-.04621
Quebec	-	-	-
Ontario	-.01120	.05034	.04593
Prairies	-.00157	.06196	-.00289
B.C.	-.04681	.06548	-.02333
Origin Community Size			
Urban 30000+	.33830*	.08140	.16435
<30000	.25958*	.08471	-.04275
Rural Non-Farm	.22317*	.08469	-.08237
Farm	-	-	-
Demographic			
Mother Tongue			
English	.00522	.05137	.01786
Other	.02137	.05889	-.00780
French	-	-	-

TABLE 14: CONTINUED

	Unstandardized b's	Standard Error b	Zero-Order Correlation
Age			
15-29	.45490*	.06941	.34142
30-34	.33934*	.06803	.18169
35-39	.12636	.07054	.00604
40-64	.00415	.04791	-.24303
65+	-	-	-
Marital Status			
Single	-	-	-
Married ≤5	.14126	.07708	.28569
>5	-.09636	.05519	-.22119
Other	.04437	.05901	.02642
Number of Children			
0	-	-	-
1	-.01452	.04352	.03680
2	.10931*	.04796	.10209
3	-.00459	.05284	-.05779
4+	.01258	.05466	-.06289
Socio-Economic			
Education			
< Primary	-	-	-
GR 9-11	-.00914	.03726	.06246
GR 12-13	-.01441	.05068	.04883
Some University	-.03051	.06012	-.01107

TABLE 14: CONTINUED

	Unstandardized b's	Standard Error b	Zero-Order Correlation
Occupation			
Unemployed	-	-	-
Managerial	-.04908	.09180	-.03409
Professional	.02118	.08092	.03370
Service	-.00714	.05703	.05751
Primary	.11105	.08175	-.03570
Manufacturing	-.01066	.05998	.01641
Other	-.06148	.06484	-.02358
Income			
<2480	-	-	-
2481-5620	.01801	.04641	.01204
5621-8640	.04875	.05274	.05618
8641+	.01106	.05556	-.02353

Constant = .00930 (proportion movers = .35; proportion stayers = .65)

R = .22928

N = 900

F = 8.06

* Significant at least .05 level.

1. Dependent Variable = Movers = 1
                        Stayers = 0

- Reference Category

help in differentiating this type of mover from stayers. Overall the fit of the model[13] is not as good as was noted in testing Model A, which is probably indicative of the greater similarity between stayers and short- distance movers than is found among stayers and movers(which include intermediate and long-distance movers).

Before proceeding with the detailed examination of the results, one point should be made. Although the signs for th coefficients in Table 14 may not be the same as they were in Table 12, this is in all likelihood due to: (i) the large standard errors that were earlier observed; and (ii) sampling fluctuations.

Opportunity Structure Differentials

Of the opportunity structure variables, only the origin variable (community size) is statistically significant; the probability of making such a move increasing from .22 to almost .34 as the size increases from rural non-farm to urban(30000+). Once again the operation of this variable can be attributed to the housing market opportunities available, where the number of opportunities is directly proportional to the size of the community. This is perhaps more clearly illustrated by the zero-order correlations which show that those living in small communities are more likely to be stayers than movers[14].

Demographic Differentials

As was noted in the testing of Model A, age was the most important variable in differentiating movers from stayers. Although, only the 15-34 age group appear to be significantly different from the 65+ age group(including those 35 to 64), the general trend is that the probability of making an intra-municipal move decreases as age increases. The fact that the 35-39 age group, although having a greater probability(.12) of making such a move than those aged 65+, is no longer statistically significant is probably due to the fact that long and intermediate distance movers are excluded from this part of the analysis[15].

While the marital status(duration) variables[16] were statistically significant in the previous model, they are no longer significant, indicating that the probability of making an intra-municipal move is not substantially different for these groups than it is for those that are single once we control age. Even though not significant[17], the same pattern as noted earlier is present; although the probability of moving appears to have increased for those that have been married less than five years.

In the literature review, there was evidence presented that indicated that the number of children influenced the propensity to move. The data(Table 14) indicate that the number of children does in fact result in a greater propensity to move after adjusting for all other factors. Whereas, the probability of making an intra-municipal move for those with one, three or four(+) children is not substantially different from those with no children, the probability of moving is increased by .11 for those with two children. This finding was earlier attributed to increasing space requirements as well as lifestyle considerations[18].

Just as was earlier noted(Model A), the remaining variables proved to be of no use in differentiating intra-municipal movers from stayers. Not only are these results fairly consistent with those previously reported; but within the context of all the literature dealing specifically with residential mobility, the finding that the demographic indicators of life cycle are most important, is consistent with the literature; especially Michelson's(1974) Family Mobility Life Cycle interpretation of residential mobility.

5.1.3 Model B-Other[19] Movers Versus Stayers

Model B was again utilized to determine which factors significantly decrease or increase the probability of making an intermediate or long-distance move. The demographic variable age appears to be the most important variable in that this variable accounts for 86.7% of the variance explained in the probability of making such a move. Three interesting patterns emerge when examining Table 15. Specifically:

1. the fiD of the model(R square) is improved in relation to the preceding two models. These results are not totally unanticipated for it was expected that the operation of some differentials would become more pronounced as the distance between the types of move increased
2. there is for the first time an indication that the socio-economic variables are important in differentiating movers from stayers
3. the opportunity structure variables no longer appear to be important in terms of substantially increasing the probability of making an intermediate or long-distance move.

Turning now to th detailed examination of these variables, the following is noted(Table 16):

Opportunity Structure Differentials

Although neither region nor community size make a significant difference in the probability of making such a move, a brief discussion of their operation is in order. Generally speaking, it appears that the probability of making such a move is decreased by living in Ontario,

TABLE 15: TOTAL AND PARTIAL R^2'S OF OPPORTUNITY STRUCTURE, DEMOGRAPHIC AND SOCIO-ECONOMIC VARIABLES ON DIFFERENTIATING OTHER MOVERS FROM STAYERS [2]. (N=827)

Variables [3]	Total R^2	Partial R^2
OPPORTUNITY STRUCTURE		
Region	.00447	.00447
Origin Community Size	.01717	.01276
DEMOGRAPHIC		
Mother Tongue	.01872	.00158
Age	.31877	.30577
Marital Status	.32539	.00972
Number of Children	.33313	.01147
SOCIO-ECONOMIC		
Education	.34605	.01937
Occupation	.35122	.00791
Income	.35263	.00217

1. Other Movers excluding Intra-Municipal

2. Dependent variables = Other Movers = 1
   Stayers = 0

3. See Appendix A

TABLE 16: REGRESSION OF OPPORTUNITY STRUCTURE, DEMOGRAPHIC AND SOCIO-ECONOMIC VARIABLES ON DIFFERENTIATING OTHER MOVERS FROM STAYERS[1].

Opportunity Structure	Unstandardized b's	Standard Error b	Zero-Order Correlation
Region			
Maritimes	-.04321	.05969	-.03337
Quebec	-	-	-
Ontario	-.00390	.04652	-.04066
Prairies	.02360	.05648	.01701
B.C.	.06173	.04383	.04660
Origin Community Size			
Urban 30000+	.02297	.06497	-.03558
<30000	.09711	.06848	.09302
Rural Non-Farm	.06135	.06905	-.00508
Farm	-	-	-
Demographic			
Mother Tongue			
English	-.04193	.04649	.00118
Other	-.00479	.05425	-.03631
French	-	-	-

TABLE 16: CONTINUED

	Unstandardized b's	Standard Error b	Zero-Order Correlation
Age			
15-29	.61240*	.06096	.50104
30-34	.35984*	.06731	.13851
35-39	.21034*	.06539	.03348
40-64	.01847	.04493	-.32634
65+	-	-	-
Marital Status			
Single	-	-	-
Married ≤5	.05839	.06798	.27421
≥5	-.08406	.04907	-.20789
Other	-.06859	.05459	-.08705
Number of Children			
0	-	-	-
1	-.10756*	.04197	-.06593
2	.00440	.04556	.08765
3	-.07532	.04922	-.07415
4+	-.06136	.04967	-.05174
Socio-Economic			
Education			
≤ Primary	-	-	-
GR 9-11	.02700	.03506	.05944
GR 12-13	-.00521	.04625	.09022
Some University	.12355*	.05247	.14351

TABLE 16: CONTINUED

	Unstandardized b's	Standard Error b	Zero-Order Correlation
Occupation			
Unemployed	-	-	-
Managerial	.00827	.08113	.01563
Professional	.08474	.06869	.17721
Service	.01453	.05322	.02602
Primary	-.06595	.07408	-.06736
Manufacturing	.00602	.05502	.02223
Other	-.05604	.06081	-.02711
Income			
<2480	-	-	-
2481-5620	.04863	.04131	.03150
5621-8640	.05174	.04787	.03010
8641+	.05696	.05117	.02862

Constant = .15965 (proportion movers = .30; proportion stayers = .70)

R = .35263

N = 827

F = 13.52

* Significant at least .05 level.

1. Other Movers excluding Intra-Municipal

2. Dependent Variable = Other Movers = 1
Stayers = 0

- Reference Category

where the opportunities are likely to be near-by. The probability, on the other hand, appears to decrease for those living in the Maritimes (1971) in part because of the limited number of opportunities both near and far[20] and also because of the barriers(distance) between the other parts of the Maritime region and the rest of the country[21].

The origin size differential though not significant[22] does indicate that those originating in rural farm areas are less likely to make such a move than are those originating in the other sized communities. It appears that the greatest likelihood of making such a move is found among those originating in the smaller urban areas; while the probability of making such a move is lowest among those living in urban areas(30000+), although it is still greater than the probability for those coming from rural farm areas[23]. The most likely explanation for this is that due to the large number of opportunities present in large urban areas, there is little or no need to make such a move; whereas, the fewer number of opportunities present in the smaller communities, necessitates or at least encourages this type of mobility.

Demographic Differentials

Of the demographic variables only age and number of children have a statisticaly significant effect on the probability of making such a move. Among those in what was found to be the most mobile age group (15-29), the probability of making such a move is increased by .61 and decreases, as age increases. That is, comparing the unstandardized b's, which indicate that although those that are aged 15-39 are more likely to make such a move than are those aged 65+; in relation to those aged 15-29 the probability of making such a move is substantially lower for those in the 30-39 age groups.

The marital status(duration) variable although no longer significant, still appears to indicate that even when controlling for all other factors, those just recently married appear to behave much like those that are single. Those married more than five years and "Others"(marital status) on the other hand, appear to be less likely to make such a move, perhaps indicating a stable life cycle stage and the presence of chidren.

The family size variable indicates support for the hypothesis that children(no matter how many) generally tend to inhibit mobility. Although these differences are not statistically significant, with the exception of those having one child, this finding is meaningful in that it tends to refute the earlier stated hypothesis; as well as presenting evidence that contradicts the points made in the earlier chapter which dealt specifically with family size[24]. Apparently, family size neither promotes nor hinders mobility of this variety.

Socio-Economic Differentials

For the first time one of these variables makes a significant difference in terms of differentiating movers from stayers. That variable is education and it seems that those with at least some university training have a significantly higher probability of making such a move than those in the other three education categories.

This finding is neither surprising nor unanticipated given that intermediate and long-distance type moves, as opposed to short-distance moves, are being considered. It seems fairly apparent that while short-distance moves are being made primarily in response to housing needs, a long or intermediate distance move is likely being made in response to career and employment opportunities. As was earlier noted, the skills acquired, the desire to make use of these skills and the ability to adapt to different environments is apparently directly related to the level of education. It was also noted that as the skills acquired increase, not only are the opportunities more widespread(national rather than simply local), but the awarenss of these opportunities is also greater. Consequently, the finding that those with some university are generally more likely to be movers than stayers is not surprising.

Although neither occupation nor income appears to significantly affect the probability of making such a move, the direction and magnitude(although rather weak) are in the expected direction. That is, those in professional and service occupations, as well as those in the top three income quartiles, appear to be more likely to make such a move than those in the lowest income quartile and the lesser skilled occupational groups.

In summary, it appears that making a long or intermediate distance move is a function of two things: the effect of age, where mobility is more likely to occur among the young; and career aspirations, the effect of which is indicated by the educational skills acquired.

5.1.4 Model B - Other Movers Versus Intra-Municipal Movers

Whereas in the preceding test of Model B, the comparison was made between "Other" movers and stayers, the comparison in this case is between movers only, that is, intra-municipal movers versus all other types of movers. One would anticipate that the findings would be somewhat similar to those observed in Tables 15 and 16[25].

The testing of this variation of Model B(Tables 17 and 18) does in fact yield results that are quite similar to those of the preceding test of this model. It should be noted, that while only the demographic

TABLE 17: TOTAL AND PARTIAL R^2'S OF OPPORTUNITY STRUCTURE, DEMOGRAPHIC AND SOCIO-ECONOMIC VARIABLES ON DIFFERENTIATING OTHER MOVERS FROM INTRA-MUNICIPAL MOVERS [1]. (N=573)

Variables [2]	Total R^2	Partial R^2
OPPORTUNITY STRUCTURE		
Region	.01091	.01091
Origin Community Size	.05803	.04764
DEMOGRAPHIC		
Mother Tongue	.05967	.00174
Age	.09344	.03591
Marital Status	.11378	.02244
Number of Children	.12934	.01756
SOCIO-ECONOMIC		
Education	.16444	.03510
Occupation	.17530	.01300
Income	.17586	.00068

1. Dependent Variable = Other Movers = 1
   Intra-Municipal Movers = 0

2. See Appendix A

TABLE 18: REGRESSION OF OPPORTUNITY STRUCTURE, DEMOGRAPHIC AND SOCIO-ECONOMIC VARIABLES ON DIFFERENTIATING OTHER MOVERS FROM INTRA-MUNICIPAL MOVERS[1].

Opportunity Structure	Unstandardized b's	Standard Error b	Zero-Order Correlation
Region			
Maritimes	.06330	.09949	.01205
Quebec	-	-	-
Ontario	.02772	.07277	-.09108
Prairies	.05006	.08707	.02128
B.C.	.18319*	.08944	.07412
Origin Community Size			
Urban 30000+	-.43650*	.14092	-.21115
<30000	-.21787	.14432	.14353
Rural Non-Farm	-.24498	.14663	.08264
Farm	-	-	-
Demographic			
Mother Tongue			
English	-.14584*	.07515	-.01721
Other	-.08922	.08336	-.03160
French	-	-	-

TABLE 18: CONTINUED

	Unstandardized b's	Standard Error b	Zero-Order Correlation
Age			
15-29	.26204*	.08871	.17319
30-34	.06831	.09378	-.04045
35-39	.16225	.10164	.02939
40-64	.02811	.07916	-.10890
65+	-	-	-
Marital Status			
Single	-	-	-
Married ≤5	-.12567	.07261	-.01642
>5	.02851	.07033	.00589
Other	-.06399	.07467	-.12231
Number of Children			
0	-	-	-
1	-.18648*	.06172	-.10897
2	-.10679	.06292	-.01151
3	-.14090	.08191	-.02263
4+	-.07694	.08243	.00925
Socio-Economic			
Education			
≤ Primary	-	-	-
GR 9-11	.09327	.05346	-.00058
GR 12-13	.08718	.06822	.04474
Some University	.24097*	.08084	.15940

TABLE 18: CONTINUED

	Unstandardized b's	Standard Error b	Zero-Order Correlation
Occupation			
Unemployed	-	-	-
Managerial	.05951	.12415	.05328
Professional	.13410	.09590	.14555
Service	-.03001	.07943	-.03099
Primary	-.10762	.11033	-.03928
Manufacturing	.01292	.08255	-.00696
Other	-.03600	.09387	-.00513
Income			
<2480	-	-	-
2481-5620	.03669	.06420	.02138
5621-8640	.03203	.07295	-.02527
8641+	.04046	.07741	.05531

Constant = .70041 (proportion others = .44; proportion intra-municipal = .56)

R = .17586

N = 573

F = 3.60

* Significant at least .05 level.

1. Dependent Variable = Other Movers = 1
   Intra-Municipal Movers = 0

- Reference Category

variable age was most important in differentiating "Other" movers from stayers(Table 15), the opportunity structure, demographic and socio-economic variables(Table 17) appear to be equally important in explaining the variation in the probability of making an intermediate move("Other" move). As well, the fit of the model(R square) has been substantially reduced[26] which is perhaps indicative of:

1. the fact that movers, no matter what type of mover, are different from stayers, but are similar to other movers
2. the effect of distance is diminished in that those making "Other" moves are all grouped together. That is, the effect of distance is lost in that distance simply represents the minimum distance or the distance between counties.

The magnitude and direction of the effect of each of these variables is illustrated in Table 18. It is observed that:

Opportunity Structure Differentials

For the first time, the opportunity structure variable region makes an important difference in differentiating movers from other movers. The probability of making an intermediate or long-distance move[27] is increased by .18 for those presently residing in B.C.[28]. Although the probability of making an "Other" move appears to be the same for the remaining regions of the country, both a comparison of the unstandardized b's and zero-order correlation coefficients apparently indicates that long and intermediate type of moves are more likely in the Western regions of the country than in Ontario and the Maritimes. Keeping in mind that region represents destination region and the "Other" movers are made up of both intra- and inter-provincial movers, what is probably indicated by the observed pattern is the on-going East-West movement and the pull of the opportunity structure in the West.

Among movers, the origin community size variable appears to have only a significant effect among those originating in the large urban areas(30000+). Ignoring statistical significance, it seems that the probability of moving such a distance is diminished as the opportunity structure(size) increases. This finding is consistent with the idea that propensity to move is inversely related to the opportunity structure at the origin.

At first glance it is quite apparent that rural farm individuals are more likely to make long and intermediate moves than are individuals from larger sized communities. This seems odd in that it is generally thought that rural peoples are quite stable. Given that we are looking at movers only, the pattern makes sense. That is, among movers originating in rural farm areas, the probability of making an "Other" move is more likely than an intra-municipal move; simply because the opportunities available(both housing and employment) are negligible if not non-existent in rural farm areas. Consequently, these mobile individuals are forced to make an "Other" type of move[29].

Demographic Differentials

Once again, a variable which has not been important in the preceding tests of both Models A and B appears to be of major importance in differentiating these movers. It appears that those whose mother tongue is English are less likely to be classified as "Others" than are those that speak French. This apparently contradicts the previous research in that it is generally assumed that Engish speaking individuals are more likely be movers than stayers. This unexpected finding is likely due to:

1. the fact that the "Other" category includes intra-provincial

movers and these types of movers account for almost 52% of the moves in the "Other" category. Consequently, the observed pattern may reflect the intra-provincial pattern of the French, while at the same time reflecting the inter-provincial pattern of the English speaking group[30]

2. the observed effect of mother tongue controlling for region. It was noted that region and mother tongue were correlated. In fact, once region was put into the regression equation, the tolerance of mother tongue decreased to about .60, indicating that almost 40% of the variance explained by mother tongue is explained by region.

Therefore the observed effect of mother tongue is quite likely due to the large proportion of intra-provincial movers, who are primarily French and living in Quebec.

While age has been the most predominant differential in the multivariate models looked at to this point, it's importance has diminished considerably in this instance. The fact that age is only statisticaly significant for those aged 15-29, apparently supports the earlier statement regarding the similarity in the age distributions among movers. That is, movers no matter what type of mover, are similar in age. Conversely, it emphasizes the dissimilarity in the age distributons for movers and stayers.

The most noteworthy finding with respect to age is that it is not a perfect linear relationship. There appears to be a greater likelihood of being classified as "Other" for those aged 35-39 than for those aged 30-34. Perhaps this indicates that long-distance moves are being made in response to career and lifestyle considerations. Generally speaking, in relation to the reference category(65+), the probabilty of making an "Other" move decreases with age, up to the point where age does not make any difference in the probability of making such a move, at least among the mobile population.

Of the two remaining demographic differentials, only the family size(number of children) variable is statistically significant. For those families having only one child, the probability of being an "Other" mover is decreased by .18. Although not statistically significant[31], the observed pattern clearly supports the earlier stated hypothesis that large family sizes are definitely a constraining influence on mobility, especially long or intermediate distance type moves.

Socio-Economic Differentials

For the most part, the operation of these variables is similar to that already noted in the preceding discussion of Model B(Table 16)[32]. The only variable that significantly increases or decreases the probability of making such a move is education. That is, having some university training appears to increase the probability by .12, once again indicating that the effect of one's socio-economic attributes on mobility are generally expressed through one's education.

This test of Model B proved to be quite informative. Although finding that: (i) the probability of making an intermediate or long-distance type move was generally greatest among those aged 15-29 and those having some university training, and (ii) that the probability decreases as both opportunity structure(size) or life cycle stage (duration and number of children) increases is not really astounding. What is most noteworthy is that the effect of age is no longer the most important variable in differentiating movers from other types of movers, which seems to indicate that while movers appear to be quite similar to other movers[33] they are quite different from stayers. As well, there is some indication that career and possibly lifestyle considerations are important in mobilty behaviour.

5.1.5 Model B - Inter-Municipal Movers Versus Other[34] Movers

The following discussion centers around exploring which factors best differentiate inter-municipal movers from "Other" movers. For the most part this comparison is between inter-municipal movers and intra-provincial movers for almost 71% of those classified as "Others" are intra-provincial movers.

Table 19 reveals that the opportunity structure variables are most important in differentiating between these two groups. Although all the demographic variables together explain an almost equal proportion of the variance in the dependent variable; in the first case it is primarily the regional variable, whereas in the second case no single demographic variable appears to be of greater importance than any other variable.

Before proceeding with the detailed examination of the operation of these variables(Table 20) it should be pointed out that the fit of the model(R square = .084) is not particularly good. Although the R square is quite low, the result is not all that disappointing. That is, the relatively small R square is indicative of the micro-level data being used. As well, it appears to be consistent with the earlier finding that movers are similar to one another yet different from stayers; for in relation to the distance between type of move, one would assume that movers of similar distances would be more similar to one another than say movers who have made moves that differ considerably in distance. Consequently, one could assume that the comparisons to be discussed here are among movers that are more similar to one another, than say in the previous case, where intermediate and long-distance movers were compared to short-distance movers[35].

TABLE 19: TOTAL AND PARTIAL R ^{2}'S OF OPPORTUNITY STRUCTURE, DEMOGRAPHIC AND SOCIO-ECONOMIC VARIABLES ON DIFFERENTIATING INTER-MUNICIPAL MOVERS FROM OTHER MOVERS[1]. (N=1,206)

Variables [2]	Total R^2	Partial R^2
OPPORTUNITY STRUCTURE		
Region	.02291	.02291
Origin Community Size	.03314	.01047
DEMOGRAPHIC		
Mother Tongue	.03792	.00494
Age	.04769	.01016
Marital Status	.05777	.01059
Number of Children	.06475	.00741
SOCIO-ECONOMIC		
Education	.07635	.01240
Occupation	.08138	.00545
Income	.08402	.00287

1. Dependent Variable = Inter-Municipal Movers = 1
Other Movers (excluding Intra-Municipal Movers) = 0

2. See Appendix A

TABLE 20: REGRESSION OF OPPORTUNITY STRUCTURE, DEMOGRAPHIC AND SOCIO-ECONOMIC VARIABLES ON DIFFERENTIATING INTER-MUNICIPAL MOVERS FROM OTHER MOVERS[1].

Opportunity Structure	Unstandardized b's	Standard Error b	Zero-Order Correlation
Region			
Maritimes	-.09256	.06647	.02690
Quebec	-	-	-
Ontario	-.21563*	.04995	-.09548
Prairies	-.23107*	.05516	-.05667
B.C.	-.18689*	.05679	-.01120
Origin Community Size			
Urban 30000+	-.04488	.05160	.05744
<30000	-.12576*	.05291	-.10123
Rural Non-Farm	-.05774	.05620	.01627
Farm	-	-	-
Demographic			
Mother Tongue			
English	.10024*	.04866	-.08971
Other	.10927*	.05607	.02750
French	-	-	-

TABLE 20: CONTINUED

	Unstandardized b's	Standard Error b	Zero-Order Correlation
Age			
15-29	-.08503	.06263	-.09916
30-34	-.02229	.06728	.04849
35-39	-.01582	.07032	.03618
40-64	-.05412	.05664	.02832
65+	-	-	-
Marital Status			
Single	-	-	-
Married ≤5	.08309	.04381	.01263
>5	.06727	.04743	.10423
Other	.04450	.04898	-.02440
Number of Children			
0	-	-	-
1	.03500	.04147	.03733
2	.03720	.04272	.06735
3	-.06908	.05072	-.03251
4+	.06313	.05460	.06595
Socio-Economic			
Education			
≤ Primary	-	-	-
GR 9-11	-.09805*	.03458	-.02481
GR 12-13	-.08916*	.04195	-.05568
Some University	-.17433*	.04809	-.07697

TABLE 20: CONTINUED

	Unstandardized b's	Standard Error b	Zero-Order Correlation
Occupation			
Unemployed	-	-	-
Managerial	.05714	.07351	-.00530
Professional	.06557	.06610	-.03231
Service	.00429	.05767	-.07528
Primary	.12413	.07854	.04765
Manufacturing	.06373	.05936	.08607
Other	.01267	.06527	-.01485
Income			
<2480	-	-	-
2481-5620	.00199	.04115	-.01572
5621-8640	-.01753	.04548	-.02409
8641+	.05053	.05016	.05166

Constant = .42551 (proportion inter-municipal movers = .26, proprotion other movers = .74)

R = .08402

N = 1,206

F = 3.36

* Significant at least .05 level.

1. Dependent Variable = Inter-Municipal Movers = 1
   Other Movers (excluding Intra-Municipal) = 0

- Reference Category

Opportunity Structure Differentials[36]

Both region and origin community size significantly affect the probability of making an inter-municipal move[37]. The regional variable is apparently the most important of the two for residing outside the province of Quebec in 1971, reduces the probability of making an inter-municipal move(in all other regions of the country). Conversely, the probability of making an "Other" move[38] is greatest in the regions other than Quebec. This finding is somewhat unexpected in that one would have expected that those living in Quebec would have been more likely to have made an "Other" move due to the barrier posed by language. Perhaps this reversal from the expected pattern represents a search for opportunties (employment) within the province of Ontario and within and between the provinces for the Western regions of the country[39]. As well, this may have resulted from the fact that the regional effect and cultural barrier posed by language are more effectively represented by the mother tongue variable.

Turning now to the community size variable, it appears that only those whose origins are small urban areas have a significantly lower probability(.13) of making an inter-municipal move than do those originating in rural farm areas[40]. Those originating in rural farm areas, on the other hand, have a probability of .42(the constant)[41] of making an inter-municipal move. The kinds of moves being made and the direction, are quite likely different depending upon the origin. That is, those originating in the rural areas are likely making an inter-municipal move to an areal unit(within the same county) that is larger than the origin; whereas, those originating in urban areas(30000+) are moving to different municipalities, eg. suburbs or bedroom communities within the same county.

For the most part, the origin community size effect is somewhat confusing and any definitive statements on its operation would be somewhat misleading given the large standard errors. One other issue which may be accounting for the confusion is that it is possible that the size of the counties within the country vary considerably, especially near the large metropolitan areas. Therefore, an inter-municipal move in one county may be more likely than such a move in another county simply because the number of alternative locations nearby may be substantially greater.

Demographic Differentials

Although each of the demographic variables explains an almost equal proportion of the variance in the dependent variable, only the mother tongue differential is statistically significant. The probability of making an inter-municipal move is significantly increased(.10) for both the English and "Other" mother tongue groups, after controlling for all other variables. This finding is important in that it clearly demonstrates the cultural barrier posed by language in that the converse of this statement is that those with French as the mother tongue, are more likely to make "Other" type moves, i.e., most likely an intra-provincial move given that almost 71% of th "Other" category are intra-provincial movers.

Although the age differential(15-29) was significant in the preceding test of Model B, not one of the age categories is significant in this case. The interpretation of this finding is that the probability of making an inter-municipal as opposed to "Other" move is similar among all age groups. What this implies is that if one is not a stayer or intra-municipal mover, one's age may not significantly affect the probability of being an inter-municipal mover. Though not significant, it should be noted that those in the 15-29 age category are more likely than those in the other age categories to make an intermediate or long-distance move("Other")[42].

Of the two remaining demographic variables, neither marital status nor family size makes a significant contribution. The only variable even approaching significance is that variable representing those individuals that have been married for five years or less. Generally speaking, these individuals are more likely to be inter-municipal movers than "Other" movers. The diminished likelihood of their making(in relative terms)[43] an intermediate or long-distance move is probably due to their recently changed status, as well as the birth of a child. That is, these individuals are unlikely to make a move which would result in even more changes than those brought about by marriage; changes that would make even more difficult the adaptation process that one must undergo as a result of changing one's lifestyle through the act of marriage and the beginning of a family.

Socio-Economic Differentials

The third and fourth tests of the mulivariate models[44] demonstrated that the higher one's socio-economic status[45] the greater the propensity to move a long-distance. The existence of this relationship is further reinforced by the results presented in Table 20. Namely, of all the socio-economic variables only education significantly affects the probability of making an inter-municipal as opposed to "Other" type of move. In fact, it is observed that as education increases, the likelihood of making an inter-municipal move decreased by .17. Conversely, the probability of making an "Other" move[46] increases. The explanation for this finding need not be discussed as it is obvious given our earlier findings.

Generally speaking, among mobile individuals[47] the probability of making a short as opposed to intermediate or long-distance move is greatest among those who mother tongue is English or "Other". Conversely, the intermediate and long-distance mover appeared to be characterized as being French-speaking, having higher levels of schooling and living in regions other than Quebec. Once again the most noteworthy finding is that age is unimportant in differentiating these type of movers from one another. Also important was the finding that these relatively longer distance type moves are probably being made in response to the search for jobs which allow one to make use of their educational training.

5.1.6 Model B - Inter-Provincial Movers Versus Other[48] Movers

This fifth variation of Model B, was set up to examine which factors differentiate inter-provincial movers from "Other" movers. The sub-sample used in this instance was the same sub-sample as was used in the preceding test of Model B. While the comparison in the previous case was primarily one of inter-municipal versus intra-provincial movers, the comparison in this case is one which compares inter-provincial to intra-provincial movers[49].

For the most part, the relative contributions of each of the groups of variables towards the proportion of the explained variance in the dependent variable(Table 21) is quite similar to that observed in the previous test of Model B. The two most noteworthy changes are: (i) that the opportunity structure variable region, is responsible for almost one-half of the explained variance; and (ii) the signs have been reversed in many cases [50].

Turning now to the detailed examination of the results(Table 22), the following is noted:

TABLE 21: TOTAL AND PARTIAL R^2'S OF OPPORTUNITY STRUCTURE, DEMOGRAPHIC AND SOCIO-ECONOMIC VARIABLES ON DIFFERENTIATING INTER-PROVINCIAL MOVERS FROM OTHER MOVERS [1]. (N=1,206)

Variables [2]	Total R^2	Partial R^2
OPPORTUNITY STRUCTURE		
Region	.05553	.05553
Origin Community Size	.05918	.00386
DEMOGRAPHIC		
Mother Tongue	.06258	.00361
Age	.06861	.00643
Marital Status	.07194	.00358
Number of Children	.07442	.00267
SOCIO-ECONOMIC		
Education	.08818	.01487
Occupation	.09570	.00825
Income	.09694	.00137

1. Dependent Variable = Inter-Provincial = 1
Other Movers (excluding Intra-Municipal) = 0

2. See Appendix A

TABLE 22: REGRESSION OF OPPORTUNITY STRUCTURE, DEMOGRAPHIC AND SOCIO-ECONOMIC VARIABLES ON DIFFERENTIATING INTER-PROVINCIAL MOVERS FROM OTHER MOVERS[1] .

Opportunity Structure	Unstandardized b's	Standard Error b	Zero-Order Correlation
Region			
Maritimes	.09011	.06089	.00651
Quebec	-	-	-
Ontario	.05833	.04576	-.01800
Prairies	.19537*	.05053	.11415
B.C.	.22064*	.05203	.14781
Origin Community Size			
Urban 30000+	.07719	.04727	.02424
<30000	.04268	.04847	-.02068
Rural Non-Farm	.07485	.05148	.02207
Farm	-	-	-
Demographic			
Mother Tongue			
English	.05238	.04457	.16308
Other	.03035	.05137	.01038
French	-	-	-

TABLE 22: CONTINUED

	Unstandardized b's	Standard Error b	Zero-Order Correlation
Age			
15-29	-.02986	.05737	.05764
30-34	-.09973	.06164	-.05964
35-39	-.05241	.06442	.01703
40-64	-.05495	.05188	-.02234
65+	-	-	-
Marital Status			
Single	-	-	-
Married ≤5	-.07380	.04013	-.00725
≥5	-.09970*	.04345	-.05190
Other	-.04426	.04487	.01237
Number of Children			
0	-	-	-
1	.04898	.03799	.00051
2	.02630	.03914	-.02032
3	.06810	.04646	.01026
4+	.06201	.05001	-.00630
Socio-Economic			
Education			
≤ Primary	-	-	-
GR 9-11	.03162	.03168	-.01766
GR 12-13	.01046	.03843	.01602
Some University	.15733*	.04406	.12863

TABLE 22: CONTINUED

	Unstandardized b's	Standard Error b	Zero-Order Correlation
Occupation			
Unemployed	-	-	-
Managerial	.10198	.06734	.04126
Professional	.02144	.06055	.00739
Service	.12399*	.05283	.05818
Primary	.03318	.07195	-.01954
Manufacturing	.08763	.05438	-.04513
Other	.08587	.05979	.00588
Income			
<2480	-	-	-
2481-5620	-.02852	.03770	-.01295
5621-8640	-.04675	.04166	-.03847
8641+	-.01800	.04595	.05650

Constant = .02195 (proportion Inter-Provincial movers = .21; proportion Other movers = .79)

R = .09694

N = 1,206

F = 3.93

* Significant at least .05 level.

1. Dependent Variable = Inter-Provincial Movers = 1
   Other Movers (excluding Intra-Municipal) = 0

- Reference Category

Opportunity Structure Differentials

The regional differential(destination) generally indicates the attractive forces of each of the regions for inter-provincial movers. Specifically, in relation to Quebec, it appears that the probability of making an inter-provincial move is significantly greater among those presently living in the Prairies or B.C., while those living in the remaining regions of the country are more likely to have made an intra-provincial move. This finding is consistent with the documented pattern of East-West movement in Canada.

Although there was no way of indentifying the origins of inter-provincial movers, the results provide further evidence which supports the earlier explanation that intra-provincial movement is greater than inter-provincial movement in Ontario and Quebec. The reason being that in the former case the opportunities are numerous within the province; in the latter case the opportunities are numerous as well, but there is also the barrier posed by language. Consequently, the probability of making an intra-provincial move in these regions is greater.

The origin community size variable, on the other hand, does not make a significant difference in the probabilty of making an inter-provincial move. That is, in relation to those movers originating on rural farms, the probability of making such a move is not substantially affected one way or another. There is some indication that inter-provincial moves are more likely among those originating in large urban areas and rural non-farm areas. One could hypothesize that the former group are more likely to make inter-provincial moves as a result of their greater ability to adapt in a new province, given that they originated in a large urban area where the cultures and types of people are more diverse.

Generally speaking the community of origin size differential is neither significant nor easily open to interpretation. Realistically, all one can say is that among movers, size of the community of origin apparently makes little difference in either increasing or decreasing the probability of making an inter-provincial move. That is, the probability of crossing a provincial boundary is equal to a constant (.022). Conversely, the probability of making an "Other" mover is quite large.

Demographic Differentials

Of the demographic variables only the marital status variable makes a significant contribution in explaining the proportion of variance in the probability of making inter-provincial move. That is, the probability of making such a move does not appear to be signficantly increased among those that were married in the last five years or among those that are classified as "Others"(in relation to being single). Generally it appears that when adjusted for all other factors, being married or "Other" apparently reduces the probability of making an inter-provincial move.

Of the remaining demographic variables, none significantly raises or lowers the probability of making an inter-provincial move. This indicates, that for the most part these variables are of no use in differentiating inter-provincial movers from "Other" movers. In fact, the probabiltiy of making an inter-provincial move is equal to the constant and this value is very much the same for all categories of a given variable(in relation to the reference category).

These findings are noteworthy in that it is generally believed that the demographic variables, notably age, are important in differentiating movers from other movers. Although these findings are somewhat unexpected, they are fairly consistent with the earlier finding that movers are quite similar to one another, especially when one compares movers of similar distances, as is the case here.

Socio-Economic Differentials

Where the demographic variables failed, the socio-economic variables appear to be more successful. This finding is not unexpected, in that the types of moves being examined here are moves that involve substantial distances. It was earlier noted that long-distance moves are generally made in response to the search for job opportunities, career advancement and monetary gain; as well as, finding a job that allows one to make the best use of the skills acquired through the education process.

Of these variables, the education and occupation variables are most important. In relation to those with primary school or less(reference category), the probability of making an inter-provincial move is substantially greater for those with at least some university training; whereas, it is similar to the reference category for all other educational categories. This finding is not suprising given the relationship between occupation, income and education. The explanation for this relationship need not be discussed, as it has been dealt with many times before.

Although the occupation differential is only significant for those in service occupations[51] it appears to support our earlier contention that long-distance moves are being made in response to the search for job opportunities. Also, the data appear to show that those who were in the labour force in 1970 and 1971, were more likely to make moves of this type than were those that were unemployed(the reference category).

Any further discussion of the occupation differential would perhaps be misleading due to the fact that this represents occupational status, after the fact. It is sufficient to note that there appears to be some support for the belief that after adjusting for all other factors, geographic mobility is really an expression of occupational mobility.

Generally speaking, the probability of making an inter-provincial move is not very great, but appears to be greatest among those with some university training, who then translate these aquired skills into an occupation. Although the probability is increased for these individuals and is generally decreased by all demographic variables, it should be noted that the probability of making an inter-provincial move is still quite low. The probability is only significantly increased when one considers the attractive force of the various regions. That is, with the 21-79 spli on the dependent variable[52] one could guess correctly 21 percent of the time, what type of move an individual made without knowing anything about that individual; but the proportion of correct guesses would be much greater if one knew what region that individual lived in at the time of the 1971 census.

Before proceeding with the final variation of Model B, it should be pointed out that these last two variations of Model B have also indicated which factors differentiate intra-provincial movers from inter-municipal and inter-provincial movers[53].

Generally speaking, while intra-provincial movers made up 71 and 66 percent respectively, of the "Other" movers in these two tests of Model B, it was assumed that the comparisons were generally similar to comparing intra-municipal and inter-provincial movers to intra-provincial movers. It is primarily for this reason that intra-provincial versus both inter-municipal and inter-provincial movers were not reported in detail. In fact, in discussing these last two variations of Model B, where applicable, mention was made of the effect of each of these differentials on differentiating these movers from intra-provincial movers.

5.1.7 Model B - Inter-Provincial Versus Inter-Municipal Movers

Although it was possible to get some indication of which factors differentiate intra-provincial from inter-provincial movers[54], it was not possible to see how inter-provincial movers differed from inter-municipal movers since almost seventy percent of the "Other" movers in the preceding test[55] were intra-provincial movers. Consequently, the major focus of this section is on differentiating these two types of movers from one another. This sub-sample excludes intra-provincial movers and compares only inter-municipal and inter-provincial movers.

In testing this variation, it was anticipated that the results would be quite similar to the results presented in the preceding section. Although being similar it was thought that perhaps the differences would be more pronounced because the two extremes[56] are being exained, i.e., short(inter-municipal) versus long(inter-provincial) distance movers.

Examination of Table 23 reveals that the opportunity structure variable region, explains almost fifty percent of the explained variance in the dependent variable. The remaining variance is almost equally explained by the demographic variables(age and marital status) and the socio-economic variable education.

As expected, the fit of the model improves considerably when comparing these two extreme type of movers. The R square of .18407 is almost double that of the R square found in the two preceding tests, adding support to the notion that the differences between movers are more pronounced as the distance between the two types of moves increases.

TABLE 23: TOTAL AND PARTIAL R^2'S OF OPPORTUNITY STRUCTURE, DEMOGRAPHIC AND SOCIO-ECONOMIC VARIABLES ON DIFFERENTIATING INTER-PROVINCIAL MOVERS FROM INTER-MUNICIPAL MOVERS[1]. (N=573)

Variables [2].	Total R^2	Partial R^2
OPPORTUNITY STRUCTURE		
Region	.09500	.09500
Origin Community Size	.09647	.00162
DEMOGRAPHIC		
Mother Tongue	.09755	.00120
Age	.11829	.02298
Marital Status	.12768	.01065
Number of Children	.13514	.00855
SOCIO-ECONOMIC		
Education	.17325	.04406
Occupation	.17923	.00723
Income	.18407	.00590

1. Dependent Variable = Inter-Provincial = 1
   Inter-Municipal = 0

2. See Appendix A

The more detailed examination of these results(Table 24) reveals:

Opportunity Structure Differentials

The more detailed examination of these results reveals that the region variable is by far the most important variable in differentiating these two types of movers from one another. In comparison to the reference category Quebec, it is noted that the probability of making an inter-provincial move[57] increases as one goes from East to West. As well, comparing the unstandardized b's, further demonstrates this point in that as one moves further West, the probability of making an inter-provincial move increases. Further comment on the operation of this variable need not be undertaken. Suffice to say, the operation of this variable is clearly representative of the attractive force of the various regions and the East-West movement in the country during the period in question.

Demographic Differentials

Generally speaking the results are quite consistent with those results found in the previous tests of this model. Of the demographic variables, only age appears to be statisticaly significant, i.e., the probability of making an inter-provincial move is increased by almost .21 for those in the 15-29 age group [58]. The remaining age categories do not indicate a probability that is significantly greater than that found among the reference category[59].

THe re-appearance of age, as a significant factor, adds further credibility to the idea that movers of similar distances are quite similar to one another. In this instance, short and long-distance movers are being compared, and as a result age is found to be important. Such was not the case in the preceding test where movers of similar

TABLE 24: REGRESSION OF OPPORTUNITY STRUCTURE, DEMOGRAPHIC AND SOCIO-ECONOMIC VARIABLES ON DIFFERENTIATING INTER-PROVINCIAL MOVERS FROM INTER-MUNICIPAL MOVERS [1].

Opportunity Structure	Unstandardized b's	Standard Error b	Zero-Order Correlation
Region			
Maritimes	.16334	.09999	-.00808
Quebec	-	-	-
Ontario	.16718*	.06754	-.02960
Prairies	.35980*	.07556	.14284
B.C.	.36605*	.07460	.17988
Origin Community Size			
Urban 30000+	.04065	.08271	.03357
<30000	.04184	.08616	.00558
Rural Non-Farm	.04931	.08869	-.01500
Farm	-	-	-
Demographic			
Mother Tongue			
English	-.01433	.06389	.16308
Other	-.02149	.08017	.01088
French	-	-	-

TABLE 24: CONTINUED

	Unstandardized b's	Standard Error b	Zero-Order Correlation
Age			
15-29	.20734*	.10131	.13106
30-34	.07060	.10685	-.05210
35-39	.12447	.10901	.01887
40-64	.12178	.08812	-.04563
65+	-	-	-
Marital Status			
Single	-	-	-
Married ≤5	-.11025	.07646	-.00089
>5	-.06500	.07514	-.07582
Other	-.09208	.07680	-.03949
Number of Children			
0	-	-	-
1	-.09270	.06832	-.05219
2	-.07309	.06927	-.03797
3	.05802	.08385	.05919
4+	-.06834	.08596	-.06806
Socio-Economic			
Education			
≤ Primary	-	-	-
GR 9-11	.21659*	.05302	.07767
GR 12-13	.17902*	.06445	.09218
Some University	.25941*	.07555	.12185

TABLE 24: CONTINUED

	Unstandardized b's	Standard Error b	Zero-Order Correlation
Occupation			
Unemployed	-	-	-
Managerial	-.10721	.11493	.02875
Professional	-.10758	.10504	.08381
Service	-.08262	.08841	.05225
Primary	-.19962	.11645	-.04569
Manufacturing	-.11723	.09127	-.08393
Other	-.03391	.09823	.03570
Income			
<2480	-	-	-
2481-5620	.08621	.06590	.04221
5621-8640	.01333	.06987	-.04789
8641+	.01830	.07582	.06919

Constant = .09299(proportion of inter-provincial movers =.47; proportion of inter-municipal movers =.53)

R = .18407

N = 573

F = 3.80

* Significant at least .05 level.

1. Dependent Variable = Inter-Provincial Movers = 1
Inter-Municipal Movers = 0

- Reference Category

distances were being compared, i.e., inter- versus intra-provincial movers.

Of the remaining demographic variables none are statistically significant although it is noted that being married and having children tends to decrease the probability of making an inter-provincial move; the reasons for this being quite obvious. Perhaps most noteworthy is the finding that those married five years or less and having only one child, are least likely to make such a move. Once again lending credence to the earlier explanation, that although changes in life cycle promote mobility, such mobility is usually of the short-distance variety; so as to minimize the number of changes that have resulted from these life cycle changes.

Socio-Economic Differentials

Of these variables, only the education variable is statistically significant. In fact, relative to the reference category the probability of making an inter-provincial move is increased by .20. Comparing the unstandardized b's, the probability is greatest among those with some university training while it appears that those with grades 9-11 are more likely to make such a move than are those with grades 12-13, but less likely than those with some university.

The remaining variables as well as not being significant, demonstrate no discernible pattern. It is worthwhile to note that the zero-order correlations do indicate that those with the more specialized skills, as well as those in the second and fourth quartile of the income distribution, appear to be more likely to make an inter-provincial move; but obviously when all factors are adjusted for, these variables do not significantly affect the probabilty of making such a move.

Generally, the results indicate that long as opposed to short-distance movers are characterized as: (i) having moved to either Ontario or the Western regions of the country; and (ii) as being young and fairly well educated. The demographic variables do appear in part, to inhibit mobility of this type, which is to be expected given the constraints posed by marriage and the presence of children. Apparently occupation and income have no effect, indicating once again that occupational mobility can be achieved through georgraphic mobility, which is dependent upon one's education.

The testing of these various models has proven to be quite important, for a number of patterns, some unanticipated, emerged. Generally the results were consistent with the research done in the past although there were some noteworthy exceptions. Further discussion of these findings is carried out in the final chapter where the implications of these findings are be more adequately reflected upon.

FOOTNOTES

1 The propotion of movers by type, ranges from 11.2%(inter-municipal), 21.8%(intra-provincial) to 9.1%(inter-provincial).

2 Whether this is high or low is not in question, but what is disturbing is that it is a deviation from the anticipated pattern. A plausible explanation for this deviation could be related to the notion of opportunity structure(labour and housing markets). That is, the unexpectedly high or low proportion of inter-municipal movers may result from there not being many opportunities within the same county that could be taken advantage of by making an inter-municipal move. Consequently, an individual in search of these opportunities may have no alternative but to make an intra-provincial, as opposed to inter-municipal move.

3 See Chapter Three.

4 The sex differential, as well as native-born status differential were not considered due to their high correlation with marital status and mother tongue respectively.

5 See Figures 1 and 2 for order of entry.

6 Model A simply differentiates movers from stayers.

7 That is, assuming that one is classified as being a zero in all combinations of the predictors. Of course it should also be noted that this is purely accidental and is really only a function of the choice of the reference category.

8 b ± 1 S.E. gives a 68% confidence interval which includes some negative, zero and positive values. This confidence interval is variable from one sample to another. This interval will cover the true unknown value of b with a probability of .68(or 68% chance), but the interval obtained here includes negative, zero and positive values and so we cannot say(from the evidence of this sample) whether the value of b is positive, zero or negative.

9 In relation to the reference category, rural farm areas.

10 (21.119/25.348) times 100 = 84%.

11 This is called a surpressor effect. It is beyond the scope of this study, as has already been noted to deal with the causal nature of these relationships.

12 This represents only one variation of Model B. For the most part Model B is used to differentiate movers(of a particular type) from stayers; as well as being used to differentiate movers from other movers.

13 Indicated by the R square.

14 Once again it should be noted that although the direct effects are substantial, there appears to be quite a significant indirect effect which mediates the effect of this variable.

15 It is assumed that age is an important constraint when looking at long-distance type moves.

16 Married more than five years.

17 It should be pointed out that both categories of married fell just below the critical value of(+/-) 1.96.

18 That is, the idea of moving to an environment that was conducive to raising school-aged children.

19 Other movers are inter-municipal, intra-provincial and inter-provincial movers.

20 Within the province.

21 The barrier posed by Quebec has been shown to be quite significant in previous research. It should also be pointed out that the interpretation of the region effect is in part incorrect because inter-provincial movers are part of the mover group, yet region represents the destination and not the origin. This region effect is likely to be more pronounced when dealing with inter- and intra-provincial movers only.

22 Indicating that the probability of making such a move is basically the same no matter what the size of the community. That is, it is equal to the constant .16.

23 Comparing the unstandardized b's for community size.

24 The literature review.

25 The assumption being that stayers and intra-municipal movers are quite similar, although there is reason to believe that movers are different from stayers as was illustrated by the testing Model A.

26 From 35.26% to 17.58%.

27 Inter-municipal, intra- or inter-provincial move.

28 In relation to the reference category Quebec.

29 This point, no doubt explains the reversal of the pattern noted in Table 16, where the signs were positive for the community size variable.

30 The significance of this statement should become more obvious when examining mother tongue within the context of intra- and inter-provincial movers only.

31 The remaining categories.

32 Differentiating "Other" movers from stayers.

33 As well as being generally young.

34 Intra- and inter-provincial movers.

35 Inter-municipal, intra- and inter-provincial("Other") compared to intra-municipal movers. That is, the comparison being made in this test of Model B is among movers who have moved at a minimum between counties to another municipality; while in the previous case the comparison was made between those who had moved within the same county and those who had moved between counties.

36 Interpretation of the results to be discussed are probably easier to understand if one keeps in mind that over 70% of the "Other" category of movers in this case are intra-provincial movers.

37 Table 20.

38 Most probably an intra-provincial move.

39 One would hope that this interpretation will be found to be correct, when examining the two remaining tests of Model B relating to inter- and intra-provincial movers. In fact, Model B was run with inter-municipal and intra-provincial movers only but the results are not presented here. The obtained results were similar in all respects to the result presented in Tables 19 and 20, apparently justifying our assumption that the comparisons being made in this test of the Model B are between inter-municipal and intra-provincial movers(Others).

40 This pattern is really not unexpected given that it is generally assumed that movement is between similar sized communities or to communities larger than the origin.

41 Given the lack of statistical significance for urban(30000+) and rural non-farm, the probability is for all practical purposes equal to the constant.

42 The unstandardized b's divided by the standard error of the b(.085/.062) and the resulting t-score for these individuals(15-29) is just below the critical value which would have been statistically significant.

43 Relative to an inter-municipal move.

44 The second and third variations of Model B.

45 Expressed primarily through education.

46 Intra- or inter-provincial move.

47 Who have made short, intermediate and long-distance moves, that is, inter-municipal, intra- and inter-provincial moves respectively.

48 Intra-provincial and inter-municipal movers.

49 Almost 66% of those categorized as "Other" movers are intra-provincial movers. It should also be noted that although it would have been possible to simply compare inter- and intra-provincial movers only (excluding inter-municipal movers); in order to maintain some sort of consistency this was done, but the results are not reported. The results obtained comparing only inter- to intra-provincial movers proved to be quite similar to the results reported here(Tables 21 and 22). In fact, the regional variable proved to be most important while the remaining variables were not important with the exception of age. That is, the probability of making an inter- as opposed to intra-provincial move was signficantly higher for those aged 15-64 than it was for the reference category(65+). The interpretation that one could attach to this finding is that the earlier noted "threshold effect" appears to be in operation. That is, especially among those in the older age groups, if a long-distance move is being contemplated, there appears to be a greater liklihood of making the long as opposed to the short(intra-provincial) mover, due to the expectation that the former will result in greater gains.

50 This reversal of signs is consistent with the way in which the dependent variable has been coded.

51 One must keep in mind that this does not necessarily represent the occupational status at the time of the move. In fact, it seems to support the earlier statement that the service sector is increasing and that geographic mobility can serve as a means of occpuational mobility.

52 Inter-provincial versus "Other" movers.

53 Tables 19, 20 and 21, 22 respectively.

54 Inter-provincial versus "Other" movers.

55 5.1.6 Model B- Inter-provincial versus "Other" Movers.

56 Distance between these type of moves is maximized.

57 To a particular region.

58 Relative to the reference category 65+.

59 The probability is equal to the constant(.09299).

CHAPTER SIX

INTER-PROVINCIAL RETURN MIGRATION, CANADA, 1966-1971

The work of Ravenstein(1885;1889) made mention of the fact that for every stream of migration there appeared to be a compensating counter-stream. Although Ravenstein was able to recognize that counter-streams do exist, this is one aspect of migration research that has been all but ignored in the study of migration. For the most part this lack of interest in the study of counter-streams(return migration primarily) [1], has been primarily due to the limitations presented by the data sources most often utilized in migration research. Specifically, aggregate census data, which although providing an indication of movement(counter-stream) between two areas, is not able to definitively demonstrate whether the movement is of the return variety or rather simply movement between areas. With the availability of individual census data, it is now possible to deal with this question in a more meaningful way, than simply looking at streams and counter-streams[2].

Before proceeding any further, a brief review of the literature, as pertains to this particular type of movement is in order. It should be noted that this reveiw of the literature will be quite brief, for in searching the literature, no more than a handful of studies relating to this particular type of movement were found.

6.1 Literature Review and Hypotheses to Be Tested

Following the work of Ravenstein the first real systematic effort to study this type of movement was undertaken by Eldridge(1965). In this study of U.S. migration(1955-1960), Eldridge dealt primarily with three types of movement: primary, secondary and return migration. Primary migration refered specifically to first-time inter-state movement; secondary moves were moves(inter-state) to a third state from a state other than the state of birth; while return migration was obviously at least a second move, but a return to the origin from where the first move was made(state of birth). These types of moves were believed to take place within the context of either a "dominant" or "reverse" stream, where return migrants were more predominant or at least made up the major part of the reverse stream[3].

Although this work was the starting point, from which most studies of return migration took their cue, this study dealt primarily with identifying the relative contributions of these types of moves[4] to the dominant and reverse streams. As well, the emphasis was directed primarily towards explaining the operation of the age differential within the context of these streams and types of moves. The relevant findings being that:(Eldridge,1965)

1. return migrants are generally older than nonreturn migrants
2. "return migrants were moving against a weaker tide of dominant migration"
3. primary moves made up most of the moves in the dominant direction and were most frequent among the young
4. return migration made up most of the moves in the reverse direction and were most frequent among those approximately five years older than those in the primary groups.

Perhaps the most relevant study of return migration[5] is the work of Lee(1974) who studied return migration differentials in the U.S.(for 1960 and 1970). The major focus of this work was on the operation of the race, sex, age, and regional(locational) differentials in return migration. Lee noted that:

1. whites were more likely to make return moves than were blacks although the difference was narrowing
2. males and females were generally the same in their propensity to return to the area of birth, although males at older ages(25-29) were more likely to be return movers than females; whereas females were more likely to be return movers if they were between the ages of 15-24. This difference was attributed primarily to the fact that males were being moved within the military or were being discharged from the military
3. "return migration assumed greater importance as size of the urban place decreased."

Although there have been other studies of return migration[6] which examine return differentials, the majority of the work in this area has focused on the decision-making process and the underlying economic motivation for return migration. Generally speaking, return migration has been studied within the context of the cost-benefit framework (Sjaastad,1962). The argument being that the cost-benefit framework approach does not adequately explain return migration and therefore "raises questions concerning the applicability of human capital models of migration and methods used for calculating rates of returns to migration"(Yezer and Thurston,1976:696).

Without repeating the theory behind the cost-benefit approach[7], it is sufficient to say that the basic premise is that man is rational and moves when the benefits outweigh the costs of making a move; where costs include both monetary and non-monetary factors. It is generally assumed that the moves are made in response to pulls rather than pushes;

for as Miller(1973:6) points out, the Lowry model is one where the "tendency for net migration to respond to economic conditions were good rather than coming from areas with unfavourable conditions."

The literature dealing with return migration has argued that this type of move results from: (i) the employment of incomplete or inaccurate information resulting in an inaccurate assessment of the costs and benefits associated with the original move(Allen,1975; DaVanzo,1981; Yezer and Thurston,1976); and (ii) that a return move may be the consequence of making a faulty cost-benefit calculus which results in a discrepancy between what Michelson(1976) has termed "experiential and mental congruence." The former refers to the actual experience, the latter refering to the perceived experience in that new environment(DaVanzo,1976;1981; Vanderkamp,1972).

Although return migration is understandable given the behavioural or social-psychological processes noted above, the research on return migration has focused primarily on the economic determinants and the failure of the return migrant to behave in the manner predicted by the cost-benefit framework. Within the context of American studies[8], the most succinct treatment of return migration was undertaken by DaVanzo (1976:15-16) who formulated a number of hypotheses which attempted to explain the "expected differences between the behavior of(potential) return and nonreturn migrants." That is:

1. the probability of return migration is expected to be higher than nonreturn migration given that movement in the past makes it easier to move in the future
2. return migrants are less sensitive to economic opportunities (wages) than are nonreturn migrants. That is, non-monetary costs and benefits are more important to return migrants. Consequently,

"economic variables should explain...little of the variance in return migration"

3. distance is of minimal importance in return migration since the migrant has more information(first-hand) about the destination. As well, the psychic costs and presence of friends and relatives at the home destination over-rides the barrier posed by distance
4. return migration increases in times of poor economic conditions.

In her subsequent discussion of return migration, DaVanzo(1981: 116-117) introduces three further theoretical considerations. Namely:

1. the time period should be considered in the study of return migration, for as this "interval of absence" increases, the propensity to return decreases [9]
2. in response to the earlier noted problem created by imperfect information, it is argued that return migration is seen as a "corrective act- one that may be guided by the migrants superior information about a familiar area"
3. moving "entails some learning by doing"[10]. The argument being that a successsful move raises the probability of making a subsequent move. Conversely, "unsuccessful movers return in the hope of regaining an earlier equilibrium of life"; and because of the failure of the initial move may be reluctant to move again at some time in the future. DaVanzo therefore argues that "a systematic process of self-selection is implied and that return migrants differ from those who do not in their motives, characteristics and circumstances both before and after the initial move and subsequent moves[11].

Generally speaking the Canadian literature on return migration has focused on the returns(gains and losses) to migration, as well as the pattern of mobility. That is, the streams and counter-streams of movement between various provinces(Courchene,1970; Grant and Vanderkamp, 1976; Vanderkamp,1968;1971;1972). The work relating to the first point has generally focused upon the returns to migration. Vanderkamp and Courchene examined specifically the questions of how migrants(both return and multiple movers) fared in relation to stayers. The general consensus was that both return and multiple movers fared worse than stayers or single movers(in the short-term) with respect to wages[12].

In addition to examining the returns to migration, Vanderkamp examined the effects of distance and unemployment on return migration. The general finding was that unemployment rates had different effects on "new movers" and "return movers." That is, new migration is negatively related to unemployment rates[13] while it is positively related to unemployment rates for return migration[14].

As well, the work done by Vanderkamp has generally confirmed the hypothesis that distance is not as significant a factor in return movement as it is in new movement. Specifically, distance does not prove to be as significant a barrier in return movement because the information and "psychic costs" of return movement are much less than they would be for a first-time mover.

Perhaps one of the most important findings of Vanderkamp was that in looking at streams and counter-streams it was observed that return migration was significantly larger if the original migration flow was across the East-West boundary(in either direction). This finding was accounted for by what he felt was definite difference in culture between East and West.

For the most part, the research on return migration has followed a tact which is quite different from the approach to be used in this primarily exploratory study of return migration in Canada(1966-1971). While past studies have dealt primarily with return migration in an economic sense, the major focus of our analysis is directed towards discovering which factors differentiate inter-provincial return movers from nonreturn movers[15]; a mode of analysis that is most similar to that which was employed by Lee(1974). Before proceeding with the presentation and discussion of those results, the hypotheses to be tested should be briefly stated.

As our concern relates to return migration among inter-provincial movers in Canada(1966-1971)[16] it is anticipated that there may not be any differences between return and nonreturn movers for a number of reasons:

1. the literature indicates that behavioural or social-psychological dimensions are most important in deciding whether to make a return move. The data source obviously has not made any effort to tap this particular dimension
2. in the preceding chapter, it was noted that movers making similar type moves were similar to one another. Consequently, one would expect that since both groups are inter-provincial movers they would be quite similar to one another
3. the literature generally treats return migration as being in response to economic factors such as wages, income and employment opportunities(unemployment rates). Once again the data source is severely limited, in that this component is not available except in a crude way; as represented by the destination region as well as origin community size variable.

Even with these limitations, it is anticipated that the examination of those same differentials, as used in the preceding chapter, may provide some insight into those factors which differentiate return from nonreturn movers. That is, it is expected that region as a proxy for both opportunity structure and culture, may prove to be of some use in differentiating between these two types of movers. As well, it is anticipated that mother tongue, a further indicator of the cultural barrier may also prove to be valuable in differentiating the two groups.

With perhaps the exception of age[17] and employment status[18], it is generally anticipated that there will be very little difference between these two types of movers with respect to the other differentials which are to be examined[19]. The belief that these remaining variables will prove to be unimportant is based upon the rather limited research that was alluded to earlier, which failed to exhibit any real systematic patterns with respect to differentiating return from nonreturn movers.

6.2 Testing the Hypotheses

From the original sub-sample of 11,918 cases, all those native-born individuals making inter-provincial moves during the 1966-1971 period were selected out. This resulted in sample size of 428 individuals who had made such moves during the period in question.

Given that individual level data are being used it was possible to identify three types of return movers and two types of primary movers[20]. Of these 428 individuals, 68.9% were nonreturn movers, while 31.1% were return movers(Table 25).

It is noteworthy that 42.8% of the return movers[21] were not born and educated[22] in the same province, while only 12.9%[23] of the nonreturn movers were not born and educated in the same province. This large difference could perhaps reflect mobility made in search of further

TABLE 25: PERCENTAGE DISTRIBUTION OF INTER-PROVINCIAL MOVERS[1] BY TYPE OF MOVE, CANADA 1966-1971.

Type of Move	Percent (N)
Return - Born and educated* same province; residing in same province in 1971.	17.8 (76)
Return - Born and educated* different provinces; residing in province of birth in 1971.	3.5 (15)
Return - Born and educated* different provinces; residing in province of education* in 1971.	9.8 (42)
Primary - Born and educated* same provinces; residing in different province in 1971.	60.0 (257)
Primary - Born and educated* different provinces; residing in different province in 1971.	8.9 (38)
TOTAL	100 (428)

1. Native born

* Province where highest grade of primary at secondary school education completed.

educational opportunities for the latter group; while indicating returning home from that search for the former group[24]. The finding that for those not born and educated in the same province(return movers only), the return move is back to the province of education rather than birth could perhaps be an indication that these are not return moves after having completed some post-secondary school education in another province; partly because it obviously indicates prior inter-provincial movement as a child and it is quite likely that the parents in making inter-provincial moves in the past, had moved to an area that had adequate educational facilities.

There are obvious problems in operationalizing the terms primary and return in such a manner. Specifically, in noting whether the moves have resulted from the search for/and completion of that search for educational opportunities, it was felt that collapsing mobility status into two categories, namely primary and return, would perhaps best suit our purposes. It should also be noted before examining each of these differentials in detail, that the magnitude of return migration(31%) is about ten percentage points higher than that noted in other studies (Courchene,1970; DaVanzo,1976; Miller,1973; Vanderkamp,1972). In relation to the Canadian studies, this ten percent difference is quite likely due to the fact that these studies have generally examined a much shorter time period. That is, Vanderkamp(1972) for example, found that for 1966-1967, 19.9% of all inter-provincial moves were of the return variety. Consequently, because a five year interval is being used in this study, a 31% figure would appear to be quite plausible and if anything it would seem to be somewhat low.

Turning now to the detailed examination of each of the differentials used to study return mobility, a number of interesting patterns emerge. Once again it should be pointed out that the analysis is meant to be exploratory and as a result no attempt is made here to look at the simultaneous operation of a number of variables[25].

6.2.1 Opportunity Structure Differentials

Just as was the case in the preceding chapter, these variables were used primarily as proxies for the employment opportunity structure (employment). The literature gives some indication, that region may be an important variable in differentiating these two types of movers from one another. In this particular case, it was noted that:

i Region

The results presented in Table 26 are significant in that it is consistent with that which is anticipated given the literature and the findings discussed in the previous chapter. Looking first at movers classified as primary, there appears to be further support for the existence of the East-West movement in the country; and specifically the attractive force of the various region[26].

Examining return movers only, a number of important patterns are noted: first, return movement is substantial to both Quebec and the Maritimes. In the case of Quebec, the high degree of return migration is quite likely due to the cultural barrier posed by language which manifests itself as disappointment in the initial move; thereby, resulting in a return move. The high incidence of return moves among those originating in the Maritimes, on the other hand, is perhaps indicative of what Vanderkamp(1972) has noted is the difficulty in adapting to the somewhat different culture as one moves further west. It is also probably due to a statistical question; that is, as the

TABLE 26: PERCENTAGE DISTRIBUTION OF TYPE OF MOVE* BY REGION (1971), CANADA 1966-1971.

	TYPE OF MOVE (%)	
Region	Return	Primary
Maritimes	17.3	5.4
Quebec	24.1	6.8
Ontario	22.6	29.2
Prairies	25.6	28.8
British Columbia	10.5	29.8
TOTAL	100	100

* Inter-provincial movers - Native born.

number of natives residing outside that area increases, the potential number of return movers is obviously increased(Allen,1973)[27]. Given the net loss for the Maritimes, it is not surprising that return movement is so great, at least in percentage terms; and second, British Columbia has very few return movers which indicates, or at least is consistent with British Columbia's position as a net gainer from all other regions of the country.

It should also be noted that return migration to Ontario is quite substantial(22.6%). Obviously this is a function of the large out-flow from Ontario [28]and perhaps is once again indicative of the cultural differences between East and West and the difficulty found in adapting to the western culture, on the part of these first time movers.

The results presented in Table 26 are clearly consistent with the expected pattern given the re-distribution pattern known to exist in Canada [29]. Clearly, the regional variable in this instance appears to be more representative of the cultural barriers posed by language; rather than representing any differential based on the opportunity structure in any region of the country.

ii Community Size

Generally speaking, the origin community size differential is of little importance in differentiating return from nonreturn interprovincial movers[30]. The differences, though not substantial for either rural farm or urban(30000+) are not easily open to interpretation. One could hypothesize that, at least for those originating on rural farms, return movement is more likely due to the adjustment process that is required from someone who has gone from a rural, to most likely an urban setting(in some other province). It is therefore conceivable that this

TABLE 27: PERCENTAGE DISTRIBUTION OF TYPE OF MOVE* BY COMMUNITY SIZE (1966), CANADA 1966-1971.

	TYPE OF MOVE (%)	
Region	Return	Primary
Urban 30000+	56.4	51.2
Urban <30000	23.3	27.1
Rural Non-Farm	14.3	16.3
Rural Farm	6.0	5.4
TOTAL	100	100

* Inter-provincial movers - Native born.

somewhat radical adjustment to this new environment results in a greater probability of being disappointed; the end result being a greater likelihood of making a return move.

The fact that this differential does not really provide any insight into what makes return movers different from nonreturn movers, is not really unanticipated given that this differential was of only marginal value in differentiating movers from stayers and movers by type of move (in the preceding chapter). That is, community size appeared to be important only in terms of differentiating intra-municipal movers from other movers.

6.2.1 Demographic Differentials

The literature has generally indicated that only age and mother tongue are of some importance in diferentiating these two types of movers from one another. The former differential is expected to show that return movers are somewhat older than primary movers; the latter, is expected to further demonstrate the barrier posed by language.

i Sex

Earlier research[31] has generally shown that the operation of the sex differential is not very pronounced. The results presented in Table 28, demonstrate that there is approximately a five percentage point difference in the proportion of those making a return as opposed to nonreturn move, by sex. That is, males appear to be less likely to make a return move than are females.

In part, this greater propensity to return among females is probably a function of two factors, namely age and marital status. As has already been noted, the females in the sample are either single,

TABLE 28: PERCENTAGE DISTRIBUTION OF TYPE OF MOVE* BY SEX, CANADA 1966-1971.

Sex	TYPE OF MOVE (%)	
	Return	Primary
Male	75.2	81.0
Female	24.8	19.0
TOTAL	100	100

* Inter-provincial movers - Native born.

divorced, widowed or separated; as well as being younger than the males in the sample, who are largely older and married. One could therefore attribute these differences to two factors. Namely:

1. return movement among sinlge females being easier than return moves among married males simply because the constraints posed by having a spouse and children are absent
2. it is possible that the original inter-provincial move was made within the context of a marriage. What with the dissolution of that marriage, the social ties in the original destination may not be great so a return move is made since the "psychic costs" are minimal in these cases. That is, return moves are likely since the costs are minimal and the returns are substantial, in terms of the support available from one's family that still resides in the home province.

It would seem that the sex differential is of some use in differentiating these two types of movers from one another. Females are more likely to make a return move than are males, the major reasons probably being their ages and their marital status. One should keep in mind that part of the operation of this differential may be a direct result of the type of sample that has been drawn and the observed distribution on the sex variable.

ii Age

Although age is generally thought to be the most useful of the demographic differentials(Eldridge,1965;Lee,1974); there is reason to believe that it's effect in this study will be marginal. There are two reasons for this belief: the first, is that inter-provincial movers of all types[32] are assumed to be similar in age to one another, simply because the young are more likely to make an inter-provincial move than are the old[33]; and the second is that, the way in which the nonreturn movers were grouped into one category tends to diminish the effect of age since some of these movers are making their second inter-provincial move, which one would assume would make them more similar in age to return movers than primary movers(first-time movers). In fact Eldridge (1965:446) found that the median age for secondary migrants was higher than it was for either return or primary migrants.

Examination of Table 29 reveals:

1. that after age forty, there appears to be a greater likelihood that an inter-provincial move will be of the return rather than primary variety
2. the age differential does not operate in a very systematic way for those between the ages of fifteen and thirty-nine. In part this is probably due to the possibility that some of the return moves are moves back to the home territory after completing some form of post-secondary schooling. It may also be due to the finding that some inter-provincial moves appeared to occur among those who were in their thirties; these moves were probably in response to career considerations.

Generally speaking, the age differential has proven to be somewhat disappointing. As has already been noted this is really not totally unexpected given the earlier finding that movers of similar distances appear to be similar to one another. The results, although not demonstrating a pronounced effect for age appear to generally confirm the hypothesis that return movers are older than primary movers.

TABLE 29: PERCENTAGE DISTRIBUTION OF TYPE OF MOVE* BY AGE, CANADA 1966-1971.

	TYPE OF MOVE (%)	
Age	Return	Primary
15-19	2.3[1]	5.4
20-24	21.1	18.6
25-29	19.5	22.7
30-34	12.0	11.5
35-39	6.0	10.2
40-44	8.3	6.1
45-49	6.8	6.1
50-54	8.3	7.5
55-59	5.3	4.1
60-64	3.8	2.4
65+	6.8	5.4
TOTAL	100	100

* Inter-provincial movers - Native born.

1. Fewer than 5 observations.

iv Marital Status

During the course of examining the sex differential, reference was made to the fact that part of the operation of that diferential could be accounted for by the marital status composition of the sample. Examination of both Tables 30 and 31 tend to support that earlier explanation. Looking first at Table 30, it is noted that the marital status differential appears to have a fairly pronounced effect in terms of differentiating these two movers from one another. It appears that the propensity to make a return move is greatest among those that are classified as "Other"; while being somewhat less pronounced among those that are single. It would therefore seem quite possible that being married tends to deter one from making a return move[34], being either single or "Other", on the other hand, makes a return move more likely due to the ease with which such a move can be made, and the perhaps greater need to be near one's family and friends(in the home territory).

During the earlier discussion of the marital status differential[35] it was noted that changing status during the inter-censal period appeared to promote mobility. This question was also addressed and the results are presented in Table 31. It is quite apparent that being married serves to deter one from making a return move and this deterrent becomes more pronounced as the duration of marriage increases.

One must be cautious in interpreting the operation of this differential for it is not possible to say if the original inter-provincial move was under-taken as a single person or as a married person(married 5 years or less). As well, it is not possible to determine from this table if the primary move is a first-time move or a second-time move[36].

TABLE 30: PERCENTAGE DISTRIBUTION OF TYPE OF MOVE* BY MARITAL STATUS, CANADA 1966-1971.

	TYPE OF MOVE (%)	
Marital Status	Return	Primary
Single	27.1	24.7
Married	54.9	63.4
Other	18.0	11.9
TOTAL	100	100

* Inter-provincial movers - Native born.

TABLE 31: PERCENTAGE DISTRIBUTION OF TYPE OF MOVE* BY MARITAL STATUS, (DURATION), CANADA 1966-1971.

	TYPE OF MOVE (%)	
Marital Status (Duration)	Return	Primary
Single	27.1	24.7
Married 5 years or less	21.8	24.7
Married More than 5 years	33.1	38.6
Other[1]	18.0	11.9
TOTAL	100	100

* Inter-provincial movers - Native born.

1. Widowed, divorced, separated.

It appears that the marital status differential does account for differential propensities to make a return move, in that being married deters one from making a return move. This is probably a result of the costs involved and the committment to making a success of the initial move; whereas, those in the other marital status categories, on the other hand, are not as constrained by cost, as well as perhaps being less committed to making a success of the original move.

v Familiy Size

In the earlier discussion of the demographic differentials, consideration was given to the life cycle variable family size(number of children). This differential was examined wihtin the context of inter-provincial mobility(Table 32) and it was noted that family size made very little difference in differentiating between these two type of movers. Although the differences were not substantial, it does appear that return movement is greater among those that have families that are completed[37] than among those who have either none or one child. Any further attempt to interpret this finding would be somewhat misleading for it could simply be the effects of age and marital status which account for the observed pattern among these individuals.

vi Mother Tongue

Both the literature(Vanderkamp,1972) and the anlaysis of the regional differential leads one to believe that next to age, mother tongue may be the most important factor in distinguishing between these two types of movers. The data(Table 33) clearly support the hypothesis that return movement is more likely among the French than English mother tongue group. It is noted for example, that the French group is more

TABLE 32: PERCENTAGE DISTRIBUTION OF TYPE OF MOVE* BY FAMILY SIZE (NUMBER OF CHILDREN), CANADA 1966-1971.

	TYPE OF MOVE (%)	
Family Size	Return	Primary
No Children	51.9	52.2
1	15.0	16.6
2	16.5	15.3
3+	16.5	15.9
TOTAL	100	100

* Inter-provincial movers - Native born.

TABLE 33: PERCENTAGE DISTRIBUTION OF TYPE OF MOVE* BY MOTHER TONGUE, CANADA 1966-1971.

	TYPE OF MOVE (%)	
Mother Tongue	Return	Primary
English	71.4	76.6
French	23.3	14.6
Other	5.3	8.8
TOTAL	100	100

* Inter-provincial movers - Native born.

likely to make a return move, while the English are more likely make a primary move. As has already been explained, this greater propensity among the French to return is in all likelihood due to the problems created by the language barrier which exists outside of the province of Quebec.

It is important to note that the "Other" mother tongue group exhibits a pattern which is quite similar to the English mother tongue group. In part, this is unanticipated but not that surprising. Keeping in mind that these are native-born Canadians, it is consistent with the notion that the children of immigrants through the processes of assimilation are learning to behave as do other native-born Canadians. This finding could also be due to the fact that lagnuage and the barrier it reflects, is no more of a barrier in their new province than it was in their home province. Another possible explanation is that the information, or at least the quality of the information used by children of immigrants, is bound to be much better; thereby resulting in a greater likelihood of the original move ending in success.

Generally, the mother tongue differential appears to be quite pronounced although it is less pronounced than the regional variable, but more pronounced than any of the other demographic differentials including age. Consequently, one can conclude that disappointment with the initial inter-provincial move is more likely to occur among those who mother tongue is not English, the end result being that this disappointment will be expressed in terms of a return move.

6.2.2 Socio-Economic Differentials

The analysis in Chapter Five appeared to indicate that inter-provincial moves were made in response to the search for job opportunities. The literature has generally attributed return moves to the disappointment resulting from the inability to find suitable job opportunities. Although this body of literature has approached the problem in a different manner than that which is adopted here, there appears to be support for the belief that employment status may be important in differentiating these two type of movers from one another. Consequently, the focus of this section is on examining the operation of a number of socio-economic characteristics, which might prove to be successful in differentiating return from primary inter-provincial movers.

i Education

Information, or lack of it, is generally assumed to play a large part in the likelihood of any move resulting in success. Consequently, one could hypothesize that not only is awareness of opportunities increased with education, but the ability to effectively utilize this information should also increase with education. The result being that one would expect an inverse relationship between propensity to return and education. This issue was examined and the results are presented in Table 34.

The data do not appear to support the above hypothesis. In fact it appears that the reverse is true, the higher the level of education the more likely a return move will be made. Keeping in mind that this variable represents status after the move and not necessarily status at the time of the move; it would perhaps be misleading to attach any further significance to this finding. It is also possible, on the other hand, that this may be due to the confounding effect of individuals completing post-secondary school education in another province and returning to the home province.

TABLE 34: PERCENTAGE DISTRIBUTION OF TYPE OF MOVE* BY EDUCATION, CANADA 1966-1971.

	TYPE OF MOVE (%)	
Education	Return	Primary
Primary or Less	18.8	20.3
Grades 9-11	33.8	34.9
Grades 12-13	24.1	23.1
Some University	23.3	21.7
TOTAL	100	100

* Inter-provincial movers - Native born.

Perhaps an even more plausible explanation is that those with greater skills are better able to afford a return move. As well, it is quite likely that since they are highly skilled, as well as being more informed about the opportunities in their home province, the opportunities for employment are much greater for them than they are for those that are less skilled[38].

In summary, it seems that the education differential is not very pronounced. What is most puzzling is that it's operation is not in the anticipated direction, although any definitive explanation for this reversal is somewhat tenuous given the nature of the data.

ii Occupation and Employment Status

Although education proved to be of marginal value, there is reason to believe that occupation and employment status maybe a more significant differential. It is generally assumed that return migration occurs most often during periods of economic turmoil. Carrying this to the individual level, it seems that an inter-provincial mover who is unemployed will have a greater propensity to return to the home area if for no other reason than their friends and relatives are located there. Stated in a different manner, if one is unemployed, it is perhaps more desireable to be unemployed near friends and relatives than in some strange environment.

Support for this hypothesis is found in Table 35 where it is noted that only those that are unemployed[39] or in "Other" and primary occupations exhibited a tendency to make a return, as opposed to, primary move.

Further examination of this table reveals a number of other interesting patterns:

TABLE 35: PERCENTAGE DISTRIBUTION OF TYPE OF MOVE* BY OCCUPATION AND EMPLOYMENT STATUS, CANADA 1966-1971

Occupation and Employment Status	TYPE OF MOVE (%)	
	Return	Primary
Unemployed	12.0	8.5
Managerial and Professional	22.6	22.0
Service	29.3	32.5
Manufacturing	20.3	25.4
Primary and Other	15.8	11.5
TOTAL	100	100

* Inter-provincial movers - Native born.

1. those in primary and "Other" occupations are more likely to make a return move following a primary move, than are those in the other occupational categories. This is not unexpected given that those in primary industries tend to have higher unemployment rates than those in the other sectors of the economy(Grant and Vanderkamp,1976:21)[40]
2. those in manufacturing are less likely to make a return move. This is easily explained in that it is assumed that these types of opportunities are highly localized. Consequently, anyone making an inter-provincial move to take up such an occupation would have presumably made the decision that such an occupation was desirable Therefore, it would seem, that a return move is less likely since these manufacturing opportunities are most likely not present in the home area.

The occupation and employment status differential appear to be of marginal utility, although it does seem to be more pronounced than the education differential. It appears that it is most useful in the case where an individual is either unemployed or has moved into an occupation where the opportunities are more local in nature.

iii Income

Economic studies of migration have generally explained inter-provincial movement in terms of responding to the pull of wage rates. The literature on return migration on the other hand, has attempted to determine the returns to migration(Courchene,1970; Grant and Vanderkamp, 1976) and show how return migrants are generally worse off than stayers[41].

Of all the differentials considered, the income differential is most confused by it's ex post facto nature. Examination of Table 36 reveals that those in the lower half of the income distribution, particularly those in second quartile, are more likely to make a return

TABLE 36: PERCENTAGE DISTRIBUTION OF TYPE OF MOVE* BY INCOME, CANADA 1966-1971

	TYPE OF MOVE (%)	
Income ($)	Return	Primary
<2480	20.3	20.7
2481 - 5620	33.1	24.1
5621 - 8640	21.1	23.7
8641+	25.6	31.5
TOTAL	100	100

*Inter-provincial movers - Native Born

TOTAL	100	100

---

* Inter-provincial movers - Native born.

move than are those in the third and fourth quartiles[42]. Due to the nature of the data any further discussion of this differential would be somewhat meaningless, although it would appear safe to say, that those in the fourth quartile are clearly less likely to make a return move than are those in the other three quartiles. This would appear to make perfect sense, if one measures success of a move in terms of a monetary gain(wages and income).

The simplistic analysis of the operation of these differentials has generally tended to support the somewhat limited research done in this particular area. Although the most important differentials appeared to be the region, age, mother tongue and employment status variables, one must be cautious in attaching any significance to these findings given the nature of the data. As well, since the analysis was primarily exploratory, the simultaneous action of a number of variables[43] was not attempted for two reasons: one, it was felt that little was to be gained by controlling for a number of variables as the regional differential appeared to be the most pronounced[44]; and two, statistical controls and the simultaneous action of all variables is perhaps most effectively dealt with within the context of a multivariate framework. Consequently, the major focus in the following section is on the multivariate analysis of a further variation of Model B, i.e., return versus nonreturn inter-provincial movers.

6.3 Model B- Return Versus Nonreturn Inter-Provincial Movers

This last and final variation of Model B examines the operation of the same differentials as were studied in the previous section and chapter. As was noted in the preceding section, it appears that the regional differential is by far the most important factor in differentiating these two types of movers from one another. Examination of Table 37 reveals that 12.35% of the explained variance in the probability of making a return move is accounted for by the region differential. The remaining explained variance[45] is largely accounted for by the demographic variables age and marital status, as well, the socio-economic variable income.

Turning now to the detailed examination of these differentials, it is generally noted that the pattern and explanations offered in the preceding section appear to be supported by the findings reported in Table 38. Specifically:

Opportunity Structure Differentials

Of the opportunity structure variables only region has a significant effect upon the probability of making a return move. Examination of the unstandardized b's reveals that for all regions[46] the probability of making a return move is decreased by simply residing outside Quebec in 1971. Comparing these same understandardized b's to one another, it is interesting to note that although a return move is less likely to be towards Ontario and B.C., a return move is more likely if one originated in the Maritimes or Prairies[47].

These results are quite consistent with those that were noted in the previous section. The finding that return moves are most likely to occur among those originating in Quebec is supportive of the idea of a language barrier. As well, the finding that return moves to Ontario and B.C. are unlikely is indicative of: in the first instance, the pull having to be quite substantial to have led one to make the initial inter-provincial move out of Ontario, given the large number of opportunities present; while in the second instance, it is simply indicative of the little West-East movement out of B.C. by those that were born and educated there.

TABLE 37: TOTAL AND PARTIAL R^2's OF OPPORTUNITY STRUCTURE, DEMOGRAPHIC AND SOCIO-ECONOMIC VARIABLES ON DIFFERENTIATING INTER-PROVINCIAL MOVERS BY TYPE OF MOVE[1]. (N=428)

Variables [2]	Total R^2	Partial R^2
Opportunity Structure		
Region	.12350	.12350
Origin Community Size	.12483	.00152
Demographic		
Mother Tongue	.12518	.00040
Age	.14634	.02419
Marital Status	.15427	.00929
Family Size	.15969	.00641
Socio-Economic		
Education	.16266	.00353
Occupation	.16691	.00501
Income	.17620	.01115

1. Dependent Variable = Return = 1
   Primary= 0

2. See Appendix A

TABLE 38: REGRESSION OF OPPORTUNITY STRUCTURE, DEMOGRAPHIC AND SOCIO-ECONOMIC VARIABLES ON DIFFERENTIATING RETURN FROM PRIMARY INTER-PROVINCIAL MOVERS .

Opportunity Structure	Unstandardized b's	Standard Error b	Zero-Order Correlation
Region			
Maritimes	-.05927	.09676	.19088
Quebec	-	-	-
Ontario	-.39372*	.07871	-.06868
Prairies	-.36047*	.07975	-.03357
B.C.	-.53840*	.08372	-.20969
Origin Community Size			
Urban 30000+	.05565	.05759	.04825
<30000	.00833	.06280	-.04024
Rural Non-Farm and Farm	-	-	-
Demographic			
Mother Tongue			
English and "Other"	.03467	.06404	-.10686
French	-	-	-

TABLE 38: CONTINUED

	Unstandardized b's	Standard Error b	Zero-Order Correlation
Age			
15-24	-.11095	.09678	-.00825
25-29	-.14525	.09678	-.03550
30-34	-.07901	.10103	.00727
35-39	-.23444*	.10927	-.06760
40-54	-.02605	.08795	.04159
55+	-	-	-
Marital Status			
Single	-	-	-
Married <5	-.07762	.07274	-.03195
>5	-.09636	.07934	-.05333
Other	.04999	.08107	.08297
Number of Children			
0	-	-	-
1	.05861	.06927	-.01979
2	.12207	.07200	.01639
3+	.09158	.07664	.00767
Socio-Economic			
Education			
< Primary	-	-	-
GR 9 - 11	.03651	.06336	-.01052
GR 12 - 13	.09712	.07457	.01104
Some University	.04222	.08200	.01797

TABLE 38: CONTINUED

	Unstandardized b's	Standard Error b	Zero-Order Correlation
Occupation			
Unemployed	-	-	-
Managerial and Professional	-.02362	.10811	.00582
Service	-.07157	.09658	-.03206
Manufacturing	-.03025	.10123	-.05565
Primary and Other	.03401	.10435	.05897
Income			
<2480	-	-	-
2481-5620	.09886	.06664	.09412
5621-8640	.01916	.07602	-.02948
8640+	-.02445	.08272	-.06040

Constant = .65076 (proportion return movers = .31; proportion primary movers = .69)

R = .17620

N = 428

* Significant at least .05 level

1. Dependent Variable = Return = 1
   Primary = 0

- Reference Category

Demographic Differentials

As has already been noted, only the age and marital status differentials appeared to have any effect on the probability of making a return move. Before examining these differentials in detail, an explanation is in order as to why the mother tongue differential no longer appears to be significant. The explanation is very simple; given the way in which the dependent variable is operationalized(coded). adjusting for region removes any effect of mother tongue since those with French as the mother tongue are found primarily in Quebec.

Turning now to the remaining demographic differentials, one finds that age is not really statistically significant, a finding that is really not surprising given that it has been shown that movers of similar distances are similar in their characteristics. It should be noted that only those aged 35-39 in 1971 have a pattern of movement that is substantially different than those in the reference category(55+). This finding is perhaps a result of the motivation behind the original inter-provincial move, i.e., the commitment(and reasons for moving) is probably greater given that the original move was probably made in response to career aspirations[48].

The remaining demographic variables[49] do not appear to be significant with respect to differentiating between these two types of movers. Although not significant the direction(signs) appears to be consistent with the observed bivariate patterns noted in the preceding section.

Socio-Economic Differentials

Although it was noted that income appeared to be the only important (partial R square) socio-economic variable, the detailed examination of these variables indicates that the effects of all these variables (including income) is neither substantial nor statistically significant.

This result is not surprising, given that the bivariate analysis indicated that these variables were of only marginal value. Quite clearly, with the adjustment for all other factors, these variables tend to lose any importance they might have had when being examined within the context of a simple bivariate relationship.

Generally speaking, the operation of these differentials(within the context of the multivariate framework) has tended to support the observed relationships found in the bivariate analysis. Of major importance is the region effect[50] and to a lesser degree age. It appears, given the 31-69 split on the dependent variable, that one could substantially increase the chances of guessing correctly if an individual was going to make a return move, simply on the basis of knowing their region of residence and their age. That is, the probability of making a return move is increased from .31(for this sample) to .65(the constant), through the assumed additive effect of all these variables.

Before preceding with the summary and conclusions, one last point must be made. Caution should be used when interpreting the significance of these findings since these two groups of inter-provincial movers are created by collapsing all inter-provincial movers into two categories. The implication being that while return movers have made at least one inter-provincial move, an undetermined proportion of those classified as primary movers are first-time inter-provincial movers. Consequently, the observed relationships may not be totally representative of that which would increase or decrease the probability of making a return move. A more appropriate means of attacking this problem would have been to simply look at return movers and secondary inter-provincial movers. This was not possible for two reasons, first, it was not practical given the substantial costs(computer time) required to draw a larger sample from the original file; and second, there was of way of identifying those individuals that had made an inter-provincial move to another province before the 1971 census[51]. Perhaps the only conclusive point that can be made is that these results reaffirm the notion that similar type movers are similar in their characteristics; for one would have anticipated greater differences between these two type of movers considering that some are moving for the first time, while others are at least second-time movers.

FOOTNOTES

1 Not all counter-stream moves are return moves, some are simply new moves between areas in the opposite direction.

2 Traditionally the study of return migration has been based on census data although much of the work done in this area, within the context of Canadian studies, is based upon individual level data(Courchene, 1970; Grant and Vanderkamp,1976; Vanderkamp,1968;1971,1972,1973).

3 Obviously one of the limitations of census data in identifying return migrants is that return moves must have occured after the initial move by at least five or ten years, depending upon the time period used to collect the census information.

4 Primary, secondary and return.

5 Relevant, in the sense that it is similar to the type of analysis to be discussed shortly.

6 Notably, Miller(1977) and Long and Hansen(1975) which generally found the same patterns as reported above.

7 See Chapter Two, Economic Approaches.

8 A comprehensive study of international return migration from the U.S. to Puerto Rico was undertaken by Alvarez(1967). As well, some mention of return migration is made by Simmons et al.(1976) in a review of internal migration in Africa, Asia and Latin America, where it was noted that return migration was based upon "social and cultural traditions and the land tenure system"(Africa)(pp.31).

9 The importance of time is also alluded to by Vanderkamp(1972) and Miller(1973).

10 This notion that those who have moved once being more likely to move again is the focus of a large body of literature(Goldstein,1954; Land, 1969; Morrison,1971; Rogers,1969; Stone,1978 to name a few).

11 Yezer and Thurston(1976) and Allen(1979) deal specifically with this selection process in that they relate movement to how pessimistic or optimistic a mover is at the time of the initial move; and the resulting effect on the individual should the move prove to be either successful or unsuccessful.

12 Courchene(1970:95) did point out that income returns to migration should be cautiously interpreted since the interval may be important given that return moves occur shortly after the initial move, thereby resulting in an upward bias in that only those migrants that did not return would be included in the sample and their incomes would probably be higher.

13 Pull is greater than push.

14 Push is greater than pull.

15 That is, nonreturn movers refer to those individuals who have made both primary and secondary inter-provincial moves of the nonreturn variety.

16 Obviously one of the limitations presented by the data source is that return migrants will refer only to those individuals that were not living in either the province of birth or province where the highest grade of secondary school education was completed prior to the date refered to in 1966. This means that those individuals that did make return(multiple moves) during the 1966-1971 period will not be represented in the sample as return migrants, or for that matter, as primary migrants because the destination and origin in both 1966 and 1971 will have been the same.

17 It is generally believed that return movers are older than nonreturn movers because being a return movers implies having already made at least one move.

18 Perhaps employment status will prove to be important but the interpretation of it's operation is rather tenuous given that it only represents status during the years 1970 and 1971.

19 More formal statement of additional hypotheses wil be carried out in the following section.

20 Primary includes both primary, secondary etc. movers excluding return movers.

21 (3.5 + 9.8)/31.1 = .428.

22 Highest level of secondary school completed in a province other than the province of birth.

23 (8.9/68.9) = .129.

24 It is anticipated that some further indication of whether such is the case will be demonstrated when examining both the age and education differentials.

25 Within the context of the bivariate analysis.

26 This point need not be elaborated upon as it is adequately discussed in the preceding chapter as relates to inter-provincial movement in the general sense.

27 In order for someone to return they have to have left at some time in the past. Consequently, if the number of original out-migrants is large, the potential number of return migrants will also be quite large.

28 The net flow is positive for Ontario.

29 Lycan,1969; Vanderkamp,1972.

30 Table 27.

31 Lee(1974) on return migration.

32 Primary, secondary and return.

33 This finding was supported in the analysis done in Chapter Five.

34 Most likely due to the monetary costs and the diminished need to be close to one's family and friends, this function being met by one's own family.

35 Chapter Five.

36 Athough the 1971 census did contain information on number of moves, it did not differentiate multiple moves by type of move.

37 Assuming that two or three children would represent a completed family.

38 In fact, this point is demonstrated by Simmons(1968) who argued that due to the selective nature of migration, what may once have been an unfavaourable situation may eventually become a favaourable situation depending upon the segment of the population that originally left a particular area.

39 One must remember that this is unemployed(did not work) in either 1970 or 1971.

40 This was attributed to the seasonal nature of employment, which may or may not be a relevant factor in this case because a five year period is being examined here; as opposed to the one or two year period used by Grant and Vanderkamp.

41 As well, it has been shown that multiple movers do not fare as well as stayers or one-time movers, implying that length of time in the present location is an important consideration.

42 Actually there is little difference in the probability of making either type of move for those in either the first or third quartiles.

43 Within the context of a bivariate framework.

44 Statistical considerations, that is, the small number of cases also presented a problem in that there was a large possibility of having a significant number of cells with too few cases to make any meaningful statements.

45 The error component of course is most important, accounting for almost 83% of the explained variance.

46 In relation to the reference category in Quebec.

47 Relative to Ontario and B.C.

48 Quite possibly an "autonomous" move.

49 Including marital status.

50 Obviously reflecting mother tongue.

51 That is, those that made a move to a different province within the context of something other than pursuing their education or moving with their parents as a child.

CHAPTER SEVEN

SUMMARY AND CONCLUSIONS

7.1 Methodological Problems

Interspersed throughout the preceding chapters, mention was made of a number of methodological problems which usually plague those that are concerned with studying the complex phenomenon of migration. It is sufficient, given that earlier mention of these problems was made, to summarize the major limitations associated with the analysis presented in the preceding two chapters. These limitations can be categorized under two general headings; first, those that pertain to the dataset and operationalization of the variables; and second, those that pertain to the analysis.

7.1.1 Dataset Limitations

Perhaps the most obvious limitation presented by the dataset was that those individual attributes used throughout the analysis do not necessarily represent the individual's status at the time of move, they are simply representative of the status at the time of the 1971 census. This limitation is perhaps most crucial in terms of the socio-economic variables, expecialy if one assumes that geographic mobility is a vehicle for occupational mobility. The problem posed by this limitation is that it is difficult, if not impossible, to determine if a particular attribute is the cause or effect of a move.

Although this was also a problem with respect to the demographic variables, it perhaps, is not as severe a limitation. It is a problem though, in that it appears that mobility is constrained by the possession of certain demographic characteristics. Consequently, not knowing the status at the time of the move, makes it difficult to say if the move is related to the individuals status at the time of the census or if it is related to the status at the time of the move; since this may not represent the status at the time of the move.

Although the 1971 census did contain information on the number of moves made during the 1966-1971 period, it was impossible to distinguish multiple movers by type of move. This limitation presented two problems: one, it would tend to under-represent the magnitude of inter-municipal, intra-provincial and inter-provincial moves while over-representing the magnitude of intra-municipal mobility. That is, multiple movers may have returned to the same municipality but not the same dwelling; and two, it obviously poses a problem in that a number of inter-provincial, as well as intra-provincial movers would be missed given that return migration generally occurs shortly after the initial move.

There were also a number of problems presented by the unavailability of certain variables, which consequently had varying effects on the ability to test certain hypotheses and models. Specifically:

1. there was no way to select out "autonomous" movers, i.e., those that had moved as a result of job transfers. Obviously the characteristics and behavioural processes for these individuals are quite different from the processes and characteristics for those individuals moving on their own initiative without the benefit of having a job waiting at the destination
2. there was no information on the origin of inter-provincial movers who had already moved from the province of birth or education at

some time in the past. This was not a serious problem, for our concern was with examining the operation of these differentials, but not within the context of streams and counterstreams. The availability of this information might have proved to be useful, especially in the study of return migration. It would have enabled us to more effectively distinguish primary movers from secondary and teritary movers

3. there was no way to identify those individuals that had made moves in response to the search for educational opportunities. This may not have been a severe limitation, in that it was possible to exclude from the sample those individuals that had attended school during the 1970-1971 academic year
4. there was no information which tapped the social-psychological dimensions usually associated with mobility decision-making[1]. That is, there was no information on: the reasons for moving; lifestyle considerations; career considerations; subjective indicators of the feeling of success or failure resulting from the mobility decision, and so forth.

In addition to these problems, there were a number of problems created by the way in which those variables that were available were operationalized. Most notable were:

1. that duration of marriage was not representative of the duration of marriage for those that were married more than once
2. family size(number of children) had to be assumed to be equal to family size minus two for those that were married, since there was no way of determining if the spouse was present or absent
3. the coding of the occupation variable, was to say the least, very crude. Consequently, the importance of this variable may have been diminished as a result of this very crude categorization

4. the most obvious limitation was that all the variables, no matter what the original scale of measurement, were transformed into categorical variables. Categorizing ordinal and interval scales clearly results in the loss of valuable information. The decision to sacrifice this specificity was made in the hope that this loss of information would be compensated for by the gains to be made from examining relationships that quite obviously are not linear in nature. That is, while the use of interval data is desireable, the curvilinear nature of these relationships, would tend to diminish the true effect of these variables. Categorizing these variables creates less of a problem in such cases, the end result being that it is possible to get a better indication of the effect of these variables.

The number of limitations presented by this dataset and for that matter most census data, are obviously quite considerable; so as not to over-emphasize the negative, a few words as related to the advantages presented by this particular dataset, are in order. The most obvious advantage is that with the availability of individual level data, it was possible to identify those individuals that are most responsible for making the decision to move, i.e., the head of the household. This is obviously an advantage over using aggregate census data, where it is impossible to eliminate from the analysis those individuals who may have little input in the decision-making process.

It was also possible to exclude those individuals that were in the military. This is an advantage, in that mobility decisions for these individuals are made by others. Consequently, the behavioural processes and characteristics of these individuals may not be similar to those of most other movers.

On the whole, it would appear that the ability to select a more representative sample of the population at risk, would in itself tend to compensate for many of the limitations noted above. Consequently, it is felt that although the situation is not ideal, this dataset is significantly better than datasets that have been used in the past to study this particular aspect of migration.

7.1.2 Data Analysis Limitations

The major focus of Chapter Four was directed towards discussing the methodology to be employed in studying this particular aspect of migration. Although a number of concerns were raised at that time, it would be beneficial to briefly deal with some of the limitations that arose within the context of the discussion of the findings.

First and foremost, there are primarily two problems related to the bivariate analysis[2]. The first, relates to the conclusions that were drawn. That is statistical significance was never rally discussed. In part, the this was not attempted since this part of the analysis was primarily exploratory. The second, relates to the failure to look at the simultaneous operation of a number of variables. This particular problem could not be avoided, what with the relatively small sample size used in this part of the analysis; and the likelihood that there would have been a significant number of empty cells[3].

There were three major limitations related to the multivariate testing of Models A and B. Specifically:

1. although the zero-order correlations were not extensively discussed, they did indicate that in certain instances there were substantial surpressor effects; pointing to the need to study this phenomenon within the context of a path model, something that is clearly beyond the scope of this study

2. the calculated t-values[4] and the critical value to which they were compared was the more conservative two tail value, even though a one-tail test may have been called for given the way in which the hypotheses were originally stated. As a result of using the more conservative value, some of the variables which were shown not to be significantly different from the reference category, would have in fact been statistically significant had the more liberal critical value been utilized. Obviously, attaching any importance to those variables that approached statistical significance would have to be done very cautiously given the large standard errors
3. the multivariate model adopted assumed additivity, which given past research and some of the observed patterns, indicated that such an assumption is not really appropriate. As was mentioned earlier this had to be assumed because of: (i) the large number of possible interaction terms; and (ii) the difficulties associated with testing the statistical significance of these interaction terms.

Although an attempt has been made to elaborate on some of the methodological problems found in interpreting the findings, there are other concerns whose effects are undetermined, which lead us to once again caution the reader. It appears that the author is once again being overly conservative in advocating extreme caution. It should be noted that the method of analysis offers a number of important advantages. Specifically:(Gillespie,1977; Miller and Erickson,1974)

1. both categorical and continuous independent variables can be used with a dichotomous dependent variable
2. it is possible to deal with curvilinearity problems in a more satisfactory manner
3. smaller sample sizes are required

4. results are easy to interpret.

There are two points that lend a substantial degree of credibility to the analysis and findings presented. The first is that there is no comparable work, especially as relates to the operationalization of the dependent variable and use of a multivariate perspective. Consequently, no evidence exists which would tend to refute the findings reported in the preceding two chapters. Second, and perhaps most important, is that from a substantive point of view, the noted relationships are quite consistent with that which has been reported by researchers in the past.

7.2 Summary and Conclusions

During the five-year period examined in this study, it was noted that almost one-half of the individuals in the sample made some sort of move. The data indicate that as distance increased, the number of movers decreased, leading one to conclude that mobile individuals do not like to stray far from their home territory. Although there was no way of determining the reason for this inverse relationship, prior research has indicated that it is a function of: the quality of information; uncertainty about finding employment; and the inherent desire among individuals to want to remain in an area with which they are familiar.

The degree of mobility exhibited by Canadians during this period was one of the reasons for deciding to undertake this study. Once again, our objective was to determine which factors differentiate movers from stayers and movers from other movers. These questions were addressed by looking at a number of factors and their relationship to mobility. Specifically, our concern centered around the operation of three types of variables: opportunity structure variables; demographic variables; socio-economic variables; and their operation within the context of Models A and B.

The first two models examined the same question but in different ways. Specifically, what differentiates all movers from stayers and intra-municipal movers(only) from stayers[5]. The findings were quite consistent with those expected given the large body of literature dealing specifically with residential mobility. That is, the number of housing opportunities(community size) and life cycle variables proved to be most important in differentiating movers from stayers.

The third model excluded intra-municipal movers and entailed comparing stayers and all other kinds of movers. Once again the anticipated relationships were noted. Specifically, intermediate and long-distance type moves were being made by those that were young and highly educated; while mobility was less likely among those that were more established, in terms of progressing through the various life cycle stages.

The fourth model compared intra-municipal movers to all "Other" movers[6]. It was generally noted that this test re-affirmed the hypothesis that movers were similar to other movers, especially in terms of age. Two points need be emphasized: one, for the first time the regional and mother tongue variables were found to be important; and two, education once again proved to be significant, supporting the hypothesis that education facilities mobility especially long and intermediate distance mobility.

The next two models confirmed the earlier finding that similar type movers are similar to one another. Examining inter-municipal movers versus "Other" movers, the ability to differentiate between these two groups decreased considerably. The most important variables were those that represented job opportunities(region), cultural barriers(mother tongue) and education, as well as occupation(but to a much lesser degree). These findings are important in that they clearly lend support to the kinds of work being done by economists who see mobility as redistributing labour, according to where the job opportunities and returns to migration are greatest.

The last model once again demonstrated that movers are similar to one another, but that differences do exist between movers if the distance is quite considerable between the groups being compared. Examining inter-provincial versus inter-municipal movers; the regional, age and education differentials proved to be most significant. This was once again indicative of the belief that intermediate and long-distance type mobility was generally made in response to perceived employment opportunities, and is usually more common among the young.

The testing of these models proved to be quite significant. Although the findings were generally consistent with the hypotheses, as earlier stated, they were significant in that there is evidence which indicates that the importance of these factors varies considerably, depending upon the type of move being made. That is, the relevant findings are perhaps best summarized in the following manner:

1. movers are quite different from stayers especially in their life cycle characteristics
2. movers are quite similar to other movers in all characteristics, although differences do tend to become more obvious as the distance between the type of moves being compared increases
3. short-distance type moves appear to be made in response to changes in life cycle while long-distance type moves appear to be made in response to the search for employment opportunities, which offer substantial returns to the individual that is mobile.

In general terms, the operation of each of these variables[7] can best be summarized in the following manner. The first group of variables(opportunity structure) were used as proxies for opportunities in both the labour and housing markets. Region which represented the labour opportunities also proved to be quite significant as a reflection of the cultural barrier that exists between the various parts of the country; community size(origin) on the other hand, was representative of both the housing and labour market opportunities.

For the most part, the regional variable proved to be of marginal value in differentiating movers from stayers and movers by type of move. The exception being that region was extremely important in differentiating long-distance movers from other movers.

The community size variable, proved to be somewhat more pronounced in it's ability to differentiate movers from stayers. This was obviously a result of the degree of intra-municipal mobility and the direct relationship between community size and housing opportunities.

The second group of varibles were those that are traditionally studied in demographic studies of migration. Support for the hypothesis that the young are more mobile than the old and more likely to move longer distances, was generally confirmed.

The remaining life cycle variables, duration of marriage and family size generally operated in the anticipated manner. That is, changing status, both marital and family size appeared to promote mobility but only certain kinds of mobility. While changes in marital status prompted short-distance moves; number of children and their assumed age composition in some instances inhibited mobility while encouraging mobility in other instances. Specifically, number of children represented expanding space requirements which appeared to encourage mobilty but not until the birth of the second child or at least not until one of the children reached school age. Long-distance moves, on the hand, appeared to be inhibited by changes in marital status and the presence of children.

The last demographic variable examined was mother tongue. Generally, mother tongue mirrored the pattern noted for the regional variable, especially the cultural barrier that region represents.

The most noteworthy finding was that life cycle changes appeared to be a very important factor in differntiating movers form stayers, as well as movers by type of move. There also seemed to be an indication that lifestyle and career considerations were important in terms of explaining the operation of a number of these differentials.

The last group of variables included were those that represented the socio-economic status of the individual. These variables were used primarily as proxies for: one, the amount of information and ability to effectively use that information(education); two, the national or local nature of the labour market, as well as indicating possible occupational mobility(occupation and employment status); and three, the returns to be gained from mobility, as well as the ability to finance the cost of mobility(income).

As was pointed out in the literature review and in the statement of the hypotheses, it was posited that these three variables were related to one another. Consequently, it was felt that the patterns would be quite similar. It was noted that education was directly related to the propensity to move and the distance moved. The relationship between education and both occupation and income proved to be important as there appeared to be a direct relationship betewen mobility and occupation and mobility and income; although neither of these variables appeared to have as significant an effect as education.

Before looking at the direction that should be taken in future research, a brief review of the findings related to return migration are in order. One of the advantages presented by this dataset was that it was possible to identify return inter-provincial movers. Indentification of these movers permitted the study of the operation of those same differentials as were studied in the first part of the study, something that really has never been done before, at least in Canada.

The operation of the region variable proved to be the most pronounced of the two opportunity structure variables considered. The region variable clearly represented not only the opportunity structure (jobs) but also the cultural barrier, in that it was noted that the incidence of return movement was quite high among those whoe were born and/or educated in the Maritimes or Quebec. In the first case this was attributed to the different culture as one moves further west; while in the second case, it was attributed to the barrier posed by language.

It was also noted that return movement was less likely in those cases where movement was towards an area that offered a good possibility of securing meaningful employment. The assumption of an expanding western economy was used to explain the somewhat lower incidence of return movement among those that originated in Ontario or the western regions of the country.

The operation of the demographic variables were examined and it was noted that:

1. males were less likely to make return moves than females
2. return movers were generally older than primary movers, although the effect of age was hidden by the fact that second and third-time etc. movers were included in the primary mover category
3. return moves were less likely to occur among those that were well into the progression through the various life cycle stages. Generally those that were single or "Other" were more likely to return. This was attributed to: (i) the perhaps greater need for

family support; (ii) the ease with which such a move could be made; and (iii) a perhaps weaker committment to making a success of the original move

4. the English mother tongue group and "Other" mother tongue group were less likely to make return moves than were the French mother tongue group.

The last group of variables examined were those that related to the socio-economic status of these inter-provincial movers. Although education proved to be of marginal value in differentiating between these two types of movers, the employment status, occupation and income differentials proved to be more pronounced. It was noted that return moves were more likely among those that were unemployed and in unskilled occupations. As well, it was noted that in those cases where the returns to migration were minimal(income), there was a greater likelihood of making a return move.

The brief examination of these bivariate relationships generally re-affirmed that movers of the same type of move are similar. Although it was not possible to determine the motivation behind return movement, it seemed that disappointment with the original move, as indicated by employment status and the returns to migration played an important part in determining if a return move was going to be made. Albeit, these variables appeared to be important, it was quite apparent that the cultural barrier posed by language, as well as the hypothesized cultural differences between East and West, are playing the most important part in the return migration phenomenon.

The last variation of Model B dealt with differentiating between these two types of movers, while looking at the simultaneous action of all the variables discussed above. Generally speaking, it was noted that none of the variables, with the exception of region[8], had a significant effect. The effect of region is understandable given what it represents. The lack of significance demonstrated by all the other variables, though disappointing, is not out of line considering that the same kinds of moves are being made by the two groups, the only difference being the direction and the motivation behind the move.

This comprehensive study of migration differentials and their operation within the Canadian context 1966-1971 has generally confirmed the types of relationships found by other researchers who have studied this very complex process. Perhaps the major contribution made by this study, rests primarily in the way the dependent variable was operationalized and the way in which the operation of these differentials has been studied; namely, within the context of a multivariate framework. The significant findings were that movers are: different from stayers; similar to other movers; and different from other movers if the distance between the groups being compared is large. These findings clearly indicate that the motivation behind mobility varies depending upon the type of move being made. That is, short-distance moves are made in response to life cycle changes and lifestyle considerations; whereas long-distance moves are made in response to career and employment considerations.

Albeit, the findings are not very exciting from the point of view of uncovering any unexpected patterns, they are quite important in suggesting the direction that should be taken in future studies of this complex process.

It is quite apparent that much work is still left to be done in terms of understanding the relationships between these variables and mobility. One of the most obvious questions left unanswered relates to the underlying causal nature of these relationships. It is quite evident, what with the large indirect effects between some of these variables, that an important underlying causal structure exists between these variables and mobilty behaviour. Consequently, dealing with this underlying causal structure is one direction that could and should be taken, if one hopes to better understand the operation of these variables.

A second aspect that definitely needs to be dealt with in a more appropriate manner concerns the clearly non-additive nature of some of the relationships found in this study. It is quite obvious that possessing certain combinations of characteristics does not have an additive effect. For example, it appears that a change in martial status, plus the assumed birth of a first-child, inhibits mobility. A change in marital status, on the other hand, apparently promotes mobility or increases the likelihood that a move will occur. Another example, is the apparent effect of being unemployed and older. While being unemployed and young may not promote mobility, the combination of being old and unemployed apparently is not an additive effect, for the probability of making a move appears to be increased. Quite clearly, there is a need for further examination of the non-additive nature of these relationships.

A third suggestion is to examine the operation of these variables within the context of a framework that looks at the operation of these variables within categories of a single variable. For example, much could have been learned by examining the operation of these variables wihtin the context of a co-variate type of analysis. For example, the analysis could have been done in such a manner that one would look at the effect of each of these variables within each of the created age categories. It is likely that this type of analysis would have been quite useful, in that it would reveal how mobility within a given age category is dependent upon different factors.

A fourth suggestion, is the need for further examination of not just what differentiates movers from stayers, but what differentiates movers from other movers. Not only is it quite apparent that movers are different from stayers, but it is also quite obvious that movers, albeit they are similar to other movers, do differ from one another. The question that must be answered is "What are the motivations behind making a given type of move?" and "Why are these movers different from other movers?"[9].

With the demonstrated importance of mother tongue, as well as the assumed existence of cultural differences in the different regions of the country, it is obvous that there is a real need for a more thorough understanding of how individuals respond to/and are influenced by these real or perceived barriers. It is quite apparent that an adequate understanding of the operation of this factor, is needed if one hopes to understand not only the barriers to mobility, but also the impact of mobility on these presumed culturally diverse areas.

One of the most important contributions made by this study was the discovery of those factors that differentiate return from "primary" inter-provincial movers. Although this analysis was primarily exploratory, a number of important issues were raised. The need for a better understanding of the return migration phenomenon is best indicated by the fact that during this period at least thirty percent of the initial moves resulted in failure. Consequently, a better understanding of this phenomenon is definitely needed, if for no other reason than to be able to help solve the problems that are created at the indiviual level as a result of this failure. Not only is it important to understand this phenomenon at the individual level, but it is obviously important at the aggregate level, as well. The efficient distribution of labour within the country; and the ability of government policy to effectively promote that distribution is obviously dependent upon having a better understanding of this phenomenon.

The aforementioned suggestions are made in conjunction with the noted findings and results presented in the preceding chapters. Quite clearly, there are other suggestions that can be made regarding the future direction of migration research. Some, but not all, are in response to the findings of this study.

One of the criticisms that can be made of this study is that the use of macro-level data, for the most part, has been avoided. It is quite obvious, that with the availability of micro-level data, the emphasis in migration research could conceivably shift. Hopefully, future studies of migration that employ micro-level data will incorporate macro-level data which describes the characteristics of both the origin and destination.

What we are advocating is an approach that in effect examines the operation of individual level characteristics, within the context of various streams and counterstreams of movement. Ideally, this will entail the use of a multi-disciplinary approach, where the emphasis is not only directed toward discovering why people move and where they move to; but will also examine the impact that migration has on both the origin and destination and how potential migrants respond to the changes that have occured as a result of migration. Obviously, such an approach presents enormous problems for the researcher who is concerned with understanding this very complex process.

A more workable and perhaps just as meaningful approach would be to study this complex phenomenon within the context of movement between areas of similar levels of development. It may be that the reason for believing that no universal migration differentials exist, is that even within a single country, let alone between countries, the variations in the level of development are great. Consequently, if one were to first identify areas that are similar in terms of the stage of development, and examine the operation of these differentials within that context, a more meaningful understanding of the migration question is probably attainable.

To a lesser degree, this study has attempted to determine that which differentiates stayers from movers. The major emphasis has been directed towards finding out how movers differ from other movers. One question that most definitely needs to be dealt with in more substantial detail is the question of, "Why do people stay?". The need to answer this question is obvious given the belief, by some, that the only difference between movers and stayers is that "stayers postpone the decision to move for periods of time that range up to an entire lifetime"(Wolpert,1965:405). Consequently, understanding why people stay would be most useful in terms of understanding why people move.

In addition to those suggestions already made, there are numerous other suggestions that could have been made. For the most part the suggestions that have been made are those that we feel are important in terms of: (i) improving upon the analysis undertaken in this study; and (ii) pointing out the direction that migration research should be going, if there is ever any hope of truly understanding this complex process and the impact it has on society.

In addition to those suggestions already made, there is one further suggestion that we propose. Perhaps the most useful, as well as realistic proposal to be made concerning future migration research is that more attention has to be devoted to looking at the motivation behind individual movement. What is being advocated is an approach taken by those studying residential mobility. That is, a more meaningful understanding of the mobility process is not likely to be forth-coming in the near future, as long as motives have be be imputed to the individual level on the basis of aggregate level data or observed patterns.

The attainment of such a goal would be more likely to occur if the following types of data were available. Specifically:

1. the use of longitudinal rather than cross-sectional data
2. more adequate and comprehensive information on the demographic variables traditionally employed in studying this phenomenon. Not only information representing attributes after the move, but also information regarding characteristics prior to/and at the time of the move
3. information regarding the objective or structural conditions (wages, unemployment rates, vacancy rates etc.) at the origin, destination and possible alternative environments
4. data dealing with such issues as lifestyle and career considerations
5. more complete information regarding the successful or unsuccessful search process
6. subjective measures dealing with such issues as: (i)satisfaction/ dis-satisfaction with the origin (ii)congruence between actual experience and perceived experience in the destination

(iii)satisfaction with the present environment and (iv)plans regarding future mobility.

The availabilty of data dealing with the aforementioned issues most definitely would: facilitate dealing with the motivation behind individual mobility; offer a better opportunity for understanding the consequences of mobility at both the individual and societal level; as well as, ultimately providing a means of attaining a better understanding of this very complex process. It is quite apparent that failing to deal with these issues, especially within the context of the total picture(economic and cultural setting), one cannot hope to truly understand the re-distribution process of peoples occuring in any given area. At best, all one can do is describe that which has taken place after it has occured, which in fact is perhaps the major contribution made by this study of migration in Canada 1966-1971.

FOOTNOTES

1 A limitation found in all census data.

2 Chapter Six, Return Migration.

3 It was felt that the multivariate testing of Model B would be a more appropriate way of looking at the simultaneous action of a number of variables.

4 Which were not reported but were compared to the critical value of plus or minus 1.96, indicating significance at the .05 level(two-tail).

5 The first, was basically the same as the second for almost 60% of the movers in the first case were intra-municipal movers.

6 Almost half of the "Other" movers were intra-provincial movers.

7 That is, not within the context of comparing groups of individuals.

8 And the 35-39 age group.

9 This point clearly emphasizes the inappropriateness of lumping all movers together and then comparing them to stayers in order to find out how movers differ from stayers.

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APPENDIX A

APPENDIX A

VARIABLES AND THEIR OPERATIONALIZATION

Dependent Variable

1. Migration Status - refers to place where a person normally lived and slept on June 1, 1966

A. Stayers - same dwelling

B. Movers - different dwelling in Canada:

Intra-municipal movers - movement within same city, town, village or municipality

Inter-municipal - movement between cities, towns, municipalities or or villages within the same county

Intra-Provincial - movement between counties in the same province

Inter-provincial - movement between provinces

Independent Variables

1. Region - where the individual resided in 1971:

Maritimes - Newfoundland, Nova Scotia and New Brunswick

Prairies - Manitoba, Saskatchewan and Alberta

2. Place of Residence June 1, 1966 - for those residing in the same dwelling in 1971 as in 1966; or different dwelling but same municipality, place of residence was coded the same as for that shown on June 1, 1971:

A. Urban

30,000 plus

less than 30,000

B. Rural

non-farm

farm

3. Sex - of head of household
4. Age - originally given in single years up to 111. These single years were then grouped in the manner noted in the tables presented in the text. In fact the categories used were very similar to the categories used by Stone(1978) in his study of the frequency of mobility in Canada.
5. Marital Status:

   single
   married - spouses presence or absence unknown
   divorced
   separated
   widowed
6. Duration of Marriage - refers to age at "first" marriage. Consequently, this does not represent duration of marriage for those married more than once. This was arrived at by subtracting present age from age at first marriage:

   married - 5 years of less
   married - more than five years
   other - 5 years or more
   other - more than five years
7. Family Size - number of persons in the Census Family(present family). Consequently, it includes children from another union for those that were married more than once. Family size refers to number of persons, therefore number of children had to be calculated. This was done by assuming that the spouse was present for married individuals, i.e., number of children was equal to family size minus two. Family size minus one was assumed for all those that were single, married, divorced, separated and widowed.

8. Mother Tongue - refers to the first language learned that is still understood. Persons who no longer understand the first language they learned reported the next language they learned and still understood. Other includes German, Italian, Netherlands, Polish, Scandanavian, Ukranian, Native Indian and All Other.

9. Native-Born Status and Period of Immigration:
   before 1946
   1946-1955
   1956-1960
   1961-1965

10. Level of Schooling - refers to highest grade of schooling attended; twelve categories were originally available which were then coded as they appear in the tables in the text.

11. Occupation and Employment Status - refers to the kind of work the person was doing. Data related to the job at which the respondent worked most hours. If he/she did not have a job during the week prior to enumeration, the data related to the job of longest duration since January 1, 1970:
    unemployed - persons who did not work in 1970
    managerial - administrators and related occupations
    professionals - natural sciences, engineering, mathematics, social sciences, religion, teaching, medicine, health, artistic, literary, recreation and related occupations
    service - clerical, sales, service
    primary - farming, horticultural, animal husbandry, other primary and related occupations
    manufacturing - processing, machining, product fabrication, assembly, repairing, construction, transport
    other - not stated and other occupations

12. Income - total income received by respondent during 1970 from wages and salaries, business or professional practice, farm operations, old age pensions, other government payments, retirement pensions from previous employment, bond and deposit interest, dividends, other investment sources and other sources. Reported to nearest dollar, including negative income. Categorized by taking and dividing the repondents into quartiles:

less than $2481

$2481-5620

$5621-8640

$8641 plus